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MIND, OBJECTIVITY AND FACT.


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THE ARISTOTELIAN SOCIETY AND THE MIND
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1.—THE STRUCTURE OF MIND.

By BEATRICE EDGELL.

THE distinction between *structural* and *functional* psychology is an old one, and perhaps *structural* psychology is now considered out of date. But as this paper is to advocate a study of mental structures, it may be worth while restating the conception of psychology held by the writers labelled "structural psychologists."

"The problem of psychology closely resembles the problem of physics. The psychologist seeks, first of all, to analyse mental experience into its simplest components. . . . He is left with certain mental processes which resist analysis, which are absolutely simple in nature, which cannot be reduced, even in part, to other processes. . . . Then he proceeds to the task of synthesis. He puts the elements together, under experimental conditions : first, perhaps, two elements of the same kind, then more of that kind, then elementary processes of diverse kinds. . . . He thus learns to formulate the laws of connection of the elementary mental processes." This is how the problem of psychology was stated by Professor Titchener in 1910. He may be regarded as one of the greatest exponents of structural psychology, and is one whom psychology may well honour. It was in the service of structural psychology that experimental methods made progress, and to such methods is due much of our knowledge of mental processes. Structural psychology, as Professor Titchener tells us, tried to give accurate answers to the questions, "*What* is experience when reduced to its lowest terms, and *how* does it come to appear as it does,

how are its elements combined and arranged ? ” When, however, psychology as a science comes to the question, “ Why ? ” Professor Titchener regards it as impotent. Although he does not accept interaction between mind and body, he declares that “ it is by reference to the body, to the nervous system and the organs attached to it, that we explain mental phenomena. The nervous system does not cause, but it does explain mind. It explains mind as the map of a country explains the fragmentary glimpses of hills and rivers and towns that we catch on our journey through it. In a word, reference to the nervous system introduces into psychology just that unity and coherence which a strictly descriptive psychology cannot achieve.” (Titchener, *A Textbook of Psychology*, p. 39.)

In contrast to the structural view we may quote the following “ functional ” statement from a textbook current in the same country and of the same date. “ Psychologists have hitherto devoted the larger part of their energy to investigating the structure of mind. Of late, however, there has been manifest a disposition to deal more fully with its functional and genetic phases. . . . We shall adopt the biological point of view just now dominant in psychology, and regard consciousness not as a metaphysical entity to be investigated apart from other things, but rather as one among many manifestations of organic life, to be understood properly only when regarded in connection with life phenomena. . . . Our adoption of the biological point of view . . . will mean not only that we shall study consciousness in connection with physiological processes wherever possible, but it will also mean that we shall regard all the operations of consciousness . . . as so many expressions of organic adaptations to our environments. . . . Mind seems to involve the master devices through which these adaptative operations of organic life may be made most perfect.” (Angell, *Psychology*, Preface, pp. 7 and 8.)

From this school of functional psychology in America there has arisen that extreme left wing -Behaviourism without a "u" (and also without an "I"). The study of situation and response, which became the formula of the functional school, led inevitably to a greater use of objective methods. The methods successful in animal psychology, where introspection is impossible and where it was necessary to exclude the hazardous inferences of "anecdotal" psychology, were applied to human psychology also, until what began as a method became a creed. The Behaviourist concerned himself solely with the behaviour of the organism, the overt responses to environment and the intra-organic responses so far as these might be directly or indirectly observable. From being a record of the functions of a psycho-physical organism, psychology became the record of the functions of a purely physical organism.

The structural psychology, of which I have chosen Professor Titchener as the typical exponent, was not indigenous to America. It represented the teachings of Wundt, and was fostered by the workers trained in his laboratory. Opposed to it, we have in Germany at the present time not an extreme left wing, but a new school -Gestalt psychology. This school abandons entirely any attempt to reach "elements," and to build up the structure of mind from complexes of elements. For the structural psychologist a perception is a complex which can be analysed into sensations and images; for the Gestalt psychologist such an analysis is impossible. If the psychologist deals with sensations at all, he must deal with them as "differentials," not as "molecules," declares Professor Köhler. The smallest unit in Gestalt psychology is already a structure. "We find at the beginning, even at the level of reflexes and instincts, and again in training and in intelligent performances, unitary, articulate, meaningful wholes, to which we apply the name of '*Gestalt*,' configurations, structure. Development starts not with chaos or with a

multitude of mental elements without order and meaning, but with structures, however primitive their character may be. Development proceeds by transformation of such structures." (Koffka, *Pedagogical Seminary*, XXXII, p. 672.) This is "structural" psychology in a new sense, though perhaps it is not quite so new in its doctrine as its exponents claim.

Although "Behaviourism" has found few adherents on this side of the Atlantic, functional psychology proper has not lacked brilliant exponents. I want to bring the general tenets of the Gestalt school, as represented by that active group of writers, Wertheimer, Köhler, and Koffka, into relation with the functional psychology of Sir Henry Head and Sir John Parsons. It will be convenient to do so in the field of sensory perception.

"Development starts with structures," says Professor Koffka. What explanation do Gestalt psychologists offer of the structures of sense perceptions? They look for the determining condition of structure in two directions: in the configuration of the physical stimuli and in the conditions prevailing in the organism at the time of stimulation, and they lay more stress on the former than on the latter. 'Gestalt' or pattern may be most simply illustrated in visual perception. The 'Gestalt,' form, or pattern seen is explained by the total constellation of physical stimuli in their relations to one another. The proximity of the stimuli to one another, their likeness or unlikeness, the degree of this likeness or unlikeness, their regularity, their suitability for making a good pattern, these are the conditions which determine the division of our total visual field into background and pattern, and which further determine the particular arrangement of pattern seen. On the physiological side, the Gestalt psychologists are unwilling to interpret perception and response in terms of paths of conduction from receptor to centre, centre to effector. They are unwilling, because on such an interpretation "actions are not determined in any way by the intrinsic nature of the

situation, but altogether by these pre-existing bond devices. The situation enters only as the agency which turns the key, presses the button, makes the machine go. The connection between situation and response is therefore purely contingent, and consequently we do not know why a certain situation affects a certain pathway, we can only state that it does do so." (Koffka, *ibid.*, p. 660.)

What view of the conduction of the nervous system do the Gestalt psychologists suggest in place of the one they discredit? "Of course, there are conductors in the theoretical ideas of Gestalt psychology, too; but they play a very different rôle here, being in a sensory field, for instance, a rather indifferent quasi-homogeneous network; which in itself does not prescribe what the outcome of our nervous dynamics shall be, or where a process shall go. This is regarded as mainly determined by the relation of actual physiological properties in the different places. . . . There are differences of temperature, of pressure, of concentration, of potential. . . . No special and constraining and isolating conductors are responsible for the result—the medium itself would conduct everywhere in every direction—and the really occurrent distribution of process is itself depending upon those physical facts, as they are at a given time. . . . Our assumption gives a physiological correlate for form as an optic reality." (Köhler, *Ped. Sem.* XXXII, pp. 714, 715.)

What explanation of perceptual pattern do we find in Sir John Parsons' or Sir Henry Head's work? We have an explanation in which biology and not physics plays the leading part. Both recognize the importance of patterns or '*Gestalten*,' and would recognize certain patterns as units for human perception, but they would not regard them as ultimate units in the evolution of perception. They are integrations of elementary sensations. Such a view of patterns is implied by the theory of the integrative action of the nervous system, since this is based on the notion

of a reflex arc. "The simple reflex is a convenient, if not a probable, fiction. Reflexes are of various degrees of complexity and it is helpful in analysing complex reflexes to separate them from reflex components which we may consider apart, and therefore treat as though they were simple reflexes." (Sherrington, *Integrative Action of the Nervous System*, p. 8.) In *An Introduction to the Theory of Perception*, Sir John Parsons aims at tracing the evolution of perceptual patterns and, in particular, the patterns of visual perception. In the story of that evolution he shows the significance of the gradual differentiation of the receptors, the great importance of "distance receptors," the effects of pluriceptive summation and interference. Most important of all for perceptual pattern is the office of the "formative zone," that is, the level of the nervous system, for which may be claimed an innate configuration of nervous impulses due to phylogenetic inheritance. In man the formative zone for vision is in the primary optic centres. "The formative zone in the lower centres is, therefore, to be regarded as the seat of what may be called patterns of the first or lower order. These correspond very nearly to Semon's 'engrams' and to Head's 'schemata'" (*op. cit.*, p. 55.) Like Sir Henry Head, Sir John Parsons recognizes the fundamental importance of posture in perception. "Posture . . . is the solid foundation upon which perception is built, and it is of such pre-eminently vital importance to the animal that it is subserved almost entirely, even in man, by a dyscritic mechanism" (*ibid.*, p. 137). It was for the pattern of posture that Sir Henry Head first introduced his term "schema." "Every recognizable change enters into consciousness already charged with its relation to something that has gone before. . . . For this combined standard against which all subsequent changes of posture are measured before they enter consciousness, we propose the word "schema." (*Sensory Disturbances from Cerebral Lesions*, Head and Holmes, p. 187). A backstroke from

the cortex modifies the patterns of the "formative zone" or the "schemata" into perceptual patterns of a higher order. The stress here is on the action of the organism rather than on the configuration of the physical stimuli.

We may next ask how far perceptual patterns or '*Gestalten*' imply conscious awareness of a situation? The answer given by the Gestalt psychologists is not very clear. When Professor Köhler is referring before an American audience to his descriptions of the behaviour of apes, he seems to go out of his way to placate "Behaviourists" by declaring: "None of my expressions was meant to imply consciousness. . . . The Behaviourist would at once point out that in explaining the alleged problem of organization I have mentioned the animal's perception of the field, and laid much stress on the organization in which the field appears to the animal. But I must answer again that for my use of these words it has no importance whether or not the animal has consciousness. . . . In the higher animals some parts of the central nervous system are the place of sensory processes, corresponding to stimulation from without . . . and I use the words 'perception of the situation' when I mean the totality of these processes" (*op. cit.*, p. 683). One may, perhaps, just comment that the language of *The Mentality of Apes* very frequently does imply conscious awareness; it is difficult to interpret it otherwise. Professor Koffka tells us that the standpoint of Gestalt psychology is one of "realism." It considers mental processes "not as something outside nature, but as just such natural events as any others. They are links in the chains of reactions produced by an organism in an environment, and cannot legitimately be isolated from this context. Consequently the science of mental processes cannot cut itself off from the other biological sciences; most particularly must it keep in close contact with physiology, as the total reaction of the organism of which mental processes are parts is surely a

physiological event. . . . A solution something like that of Professor Lloyd Morgan's emergence seems to point in the right direction. . . . If 'mentality' or 'awareness' be a quality attaching to special physiological processes, then surely the quality of such awareness cannot be merely contingent on these processes, but must share their essential properties." (Koffka, *Psyche*, July, 1924, p. 2). Presumably the matter stands thus: '*Gestalten*' are physical structures which evoke physiological structures. When awareness is present we should change the word 'physiological' into 'psycho-physical,' but no clear indication is given us of when and why this change is appropriate. By reason of the stress they lay on physical constellations and correlate 'forms' of distribution within the organism, the Gestalt school have not the same mission to offer to mind as have the physiologists who start with an organism credited with simple reflex responses. Mind for these physiologists can take a hand in the great game of integration. 'Why has consciousness emerged?' asks Sir John Parsons. "I think that the answer is that the fundamental utility of consciousness for the animal species is for the very purpose of synthesizing and integrating the apparently incongruous elements of which consciousness is made up—extero- and intero-ceptive impulses and so on" (*op. cit.*, p. 40).

Although, in the view of both Sir John Parsons and Sir Henry Head, the sensations into which human perceptions can be analysed are subserved by analytically separable receptor-conductor-effector systems, the actual results of stimulation depend upon many factors, of which the stimulus is only one. The same stimulus may produce different sensory responses, and different stimuli produce the same response. Previous stimulation and the influence of the higher centres help to determine the resultant. Isolated stimuli rarely occur. We have pluri-ceptive summation, with which memory traces are incorporated.

Even if the "why" of emergence is clear, it is not so easy to determine just *when* consciousness is present. Dr. Head is able to show from experimental investigation that the behaviour of decerebrate preparations is selective and purposive. "As we pass in review, from below upwards, the various functions which depend for their existence on the integrity of the central nervous system, sensation is the first to reveal the workings of consciousness; it forms the lowest mental level. But the afferent impulses, on which it depends, have already reached a stage of profound integration and, in the absence of the higher centres, are capable of initiating and controlling elaborative and purposive responses. . . . There is no absolute criterion by which an external observer can distinguish conscious from unconscious behaviour." (Head, *Aphasia and Kindred Disorders of Speech*, pp. 495, 496.)

If regarded as purposive, and surely only if so regarded, responses can be classed as efficient and inefficient. Dr. Head uses this character of efficiency to define a notion which he treats as an explanatory principle, vigilance. Vigilance is high-grade physiological efficiency. Even in decerebrate preparations the responses made to stimulation vary in efficiency. This variation is not a change in the threshold of stimulation, it is a change in the character of the response. The response is of a different grade. The more efficient the response the greater the vigilance of the organism. Vigilance in the higher centres requires psychical as well as somatic conditions. The co-operation of psychical and somatic conditions in efficiency is for Sir Henry Head the solution of the mind-body problem. "When vigilance is high, mind and body are poised in readiness to respond to any event external or internal. . . . The common factor in psychical and physiological processes is vigilance." (*Ibid.*, pp. 496 and 497.) That the latter proposition follows from the former is by no means obvious. He tells us that "there is no more difficulty in understanding how an act of consciousness can

affect a physiological process than in comprehending how one reflex can control and modify another of lower order" (*ibid.*, p. 496.) Perhaps not; perhaps our ignorance of control is so profound that any difference in degree is negligible, but difference there undoubtedly is. In the one case we can point to the events which have this function, in the other we cannot unless—and I think that is perhaps Dr. Head's view—consciousness is nothing but a function of the higher centres.

We have seen that it is these higher centres which control the perceptual patterns in the formative zone. We find the following statement in *The Theory of Preception*: "Everyone agrees as to the great importance of attention in pattern-perception in man, and so far as attention affects the formative zone it must be by a backstroke from the cortex. May we not regard attention as in some manner a sensitizer of the formative zone. . . . We may imagine that on the first occasion the constellation of impulses reaches the cortex and arouses attention to what is a relatively formless or patternless percept—a percept of the lower order. Attention sensitizes the formative zone, with the result that the impulses are correlated into a pattern which arouses a definite perceptual pattern—a percept of a higher order" (*op. cit.*, p. 55). Is this the sort of thing which Sir Henry Head has in view when he speaks of an act of consciousness affecting a physiological process? I say "sort of thing," because I find it difficult to understand what is being described when "attention" is said to "sensitize the formative zone." I cannot believe that this blending of the language of psychology with that of physiology really brings us any nearer to understanding the relation of mental processes to physiological ones. Even if it is maintained that the language of psychology and the language of physiology are but two ways of describing the same fact, a confusion of the ways is not enlightening.

This paper started with a reference to the opposition between structural and functional psychology. It has endeavoured to show what the reaction against structural psychology has become in the German school of Gestalt psychology, and it has endeavoured to set this school in relation to the functional psychology of men like Sir John Parsons and Sir Henry Head. I want now to suggest that work such as theirs opens the door to an interpretation of structure in psychology which is not only widely different from the old type of structural psychology with its doctrine of elements and compounds, but is also different in many respects from Gestalt psychology. It would be nearer the truth to say that their work suggests fresh avenues through which knowledge of structure may be obtained, for the line of study I have in view is nothing new. To make it clearer in what sense the term "structure" is now being used, I will endeavour to relate the terms "event," "function," "structure" to one another, and to consider their parallel significance in psychology and physiology.

Just as the stream of processes which take place within the bodily organism constitutes the bodily life of that organism, so, if we make any distinction, even in aspect, between bodily and mental life, a stream of mental processes make up the mental life of the individual. If a cross section of the stream be taken at any time the processes which introspection can distinguish within that section will be mental events. How fine that discriminative analysis may be, and how far its findings should be hypothetically extended to the extra-conscious borders of the stream, are questions which I wish to leave aside. Some of the events have what Professor Broad terms "reference." When they occur there is cognition of some sort. This reference is what I wish to term the function of the event (or events) then occurring. Reference is its office or work. I believe that other events which are "non-referential" likewise have function, but for the purposes of the present paper it will suffice if they be thought of as

influencing referential events and thus indirectly influencing the function of these events, without, however, having an independent function of their own. Mental events reduced to their lowest terms would be the elements of the old structural psychology. We recognize that an isolated event is an abstraction, and that we are only dealing with abstractions when we talk of an event for what it is in itself, a sensation, an image, etc. Such cognitional events are not cognition. In order to treat them as cognition we have to endow them with meaning.

"Meaning," of course, in the old structural psychology was explained by a complex of events, images and the like, attendant on the sensation events. It was in opposition to this doctrine that Gestalt psychology claimed "meaning" as a unit whole. I should, in principle, agree with the Gestalt school. No "meaning" can be given to an event by surrounding it with a halo of ghost-like attendant events, each of which stands in similar need of "meaning." The "meaning" of a referential event, which I call the function of the event, depends upon what I want to term "structure." What does the term "structure" signify? What does it signify in the phrase "the structure of the nervous system"? We have seen that for Sir John Parsons and Sir Henry Head perceptual pattern is due not merely to the stimulus but to the influence of the formative zone, the schemata, and to the backstroke from the cortex. A shorter way would be to say that pattern is due not merely to the stimulus but to the structure of the nervous system. Explanation is then given in terms of organization and not by an enumeration of a sum of events. "Pattern" is not explained by "engrams," "traces," and "dispositions" treated primarily as changes wrought in the stuff out of which the nervous system is composed. I venture to think that for Sir Henry Head and Sir John Parsons the *primary* meaning of "schema" and "formative zone" is a system of relationships. Relationships of what? Relationships of function.

The phrase "the integrative action of the nervous system" indicates the building of structure by function, and the determination of function by the structure already built. It is in this sense of organization that I want to use the word "structure" of mind. The word gives little trouble when we can fall back on the material in space to which the organization refers, as we can in the central nervous system. With mental structures this comfortable background is lacking. Does not this make the word inappropriate? Can mental events furnish a basis for structures? We feel no difficulty in attributing existence to events. Can we predicate existence of mental structures because we can predicate it of events? If structures were composed of events we could predicate existence of the structure as long as the events which composed the structure existed. But on the view which I am trying to put forward a mental structure is not made up of events. It is an organization not of events but of functions. After all, is this not true of a physiological structure? Someone may claim that in the nervous system a function is an event. I believe that the term is so used, but that it is used ambiguously. Its primary significance is the effect of a process, and it has only a secondary reference to the bare process. If physiologists are right in attributing a biological significance to physiological events, then there is a distinction in physiology between events and their function. In which case physiological structures, like mental structures, will be organizations of function. And of such an organization one does not predicate existence, but subsistence. We may therefore hold that the term "structure" is not inappropriate for mental organizations. In so far as Gestalt psychology stands for the importance of structure in the explanation of mental functions, I regard it as standing for an important principle, but I do not regard it as successful in its endeavour to explain the structures of sense perception in terms of configurations of physical stimuli. The theory attempts too direct a translation

of the constellations of physical events into the patterns of perception. Professor Köhler holds that the ultimate character of events in the physical world reveals structural patterns. This scientific or metaphysical conception of the nature of reality does not, however, justify a belief in a direct correspondence between the patterns of physical stimuli and the patterns of human perception. We have already pointed out that among this group of psychologists the rôle assigned to the organism in determining patterns is a minor one, and little attention is paid to the evolution of the central nervous system.

We have said that for Sir John Parsons and Sir Henry Head consciousness has a part to play in the integrative activity of the nervous system. Dr. Head calls it in only in relation to the efficiency of the higher centres; it is required for vigilance. Sir John Parsons recognizes the emergence of consciousness at lower levels of integration. "We cannot say when consciousness begins in the animal scale, but the simplest hypothesis is to attribute some form of consciousness to all living organisms. That it should be crude and undifferentiated in crude and undifferentiated lowly organisms is but in accordance with biological principles" (*ibid.*, p. 37). One may say this points in the direction of panpsychism. This may be, but the immediate moral I want to draw is that both writers make evident the necessity of describing function in terms of the requirements of the situation. This is so in the theory of perception, and it is so in the study of the higher functions. The great value to psychologists of these researches on perception and thought lies in the insight which they afford into the structures of mind. On the physiological side, Dr. Head can tell us the site of the lesions from which his patients suffered. He can infer just how the physiological organization was interfered with, but he tells us even more clearly how the mental organization was upset. By studying loss of function we may learn about the organization with which that function stands in

reciprocal relationship, be it on the side of the body or on the side of the mind. To learn that a patient who is suffering from a cortical lesion is able to localize accurately tactile sensations on a limb, although he cannot indicate the "where" or position of this limb in relation to the body; to learn that such a patient, whose tactile sensibility is in no way lowered, may nevertheless be unable to discriminate one touch from another when two contacts are given simultaneously, although his ability to localize either touch separately is perfect; to find, further, that he will discriminate one touch from the other if the second is separated from the first by a fraction of a second: to learn these facts is to realize how indeterminate is the function of a sensation apart from a particular organization of sense experience. The patients operated upon for congenital cataract see only a mosaic of coloured light and shade. "They appreciate quite well the differences in the different mosaics, but they are unable to unify them into independent perceptual patterns because they are ignorant of their meanings. Meanings are bound up for them with their tactile impressions. It is only when they are correlated by experience with their newly experienced visual impressions that the latter can be integrated into a unit perceptual pattern" (Parsons, *ibid.*, p. 58). We are reminded of the well-known quotation from Dr. Stirling, "What to Crusoe was a ship, was to Friday only a dark and amorphous blur, a perplexing, confusing, frightening mass of details, which would not collapse and become single and simple to him." Study of defects, study of stages of progress in the individual and in the race, may help to a more accurate understanding of the development and nature of these organizations.

If we turn from perception to thought we find the same psychological lesson; loss of function reveals failure of organization, but not loss of an ingredient or element in a complex. Dr. Head's work on aphasia is one of the most important

contributions to the psychology of thought that has been made in recent years. The old theories of aphasia were based psychologically on the old type of structural psychology wherein the elements of thought were some variety of verbal imagery. They were based physiologically on what one might term the old type of structural physiology, a physiology dominated by anatomical localization of specific centres. Dr. Head has shown conclusively that the defects from which aphasic patients suffer cannot be attributed to the loss of a certain variety of verbal imagery localized in "centres" destroyed by lesion. The old labels, "alexia," "agraphia," "sensory aphasia," "motor aphasia" are not only inappropriate as descriptions of the actual defects, but are misleading in their significance. His own characterization of them is "defects in symbolic formulation and expression." On psychological grounds he draws a distinction between situations which can be dealt with by what he styles "matching," and situations which require the use of symbols. Perceptual recognition of objects is "matching"; the data of sense are straightway matched with meaning: "This means x." Memory recall in response to a suggestion is likewise "matching." But a situation that can only be interpreted after analysis requires the formulation and expression of its interpretation in symbols. By means of a series of carefully devised tests patients were presented with situations that varied in their demand, ranging from those requiring simple matching to those requiring a high degree of ability to formulate and use symbols. Words are the commonest symbols, but figures, diagrams, musical notation also came within the scope of the investigations. Even sensory images may be symbols when not directly representative of a particular situation. Dr. Head found that patients who, prior to their injury, had habitually used imagery in their thought processes, still had vivid images, but "they form isolated moments in the act of thinking, and are not linked

up effectively by coherent bonds of verbal formulation. They cannot be evoked with certainty to command, nor translated into some other form of symbolic representation." (*Aphasia and Kindred Disorders of Speech*, Vol. I, p. 378.)

By means of these tests the character and extent of the patient's disability to formulate and use symbols expressively is ascertained, and a classification of types made upon this basis. Over and over again Sir Henry Head emphasises the point that the nature of the defect does not reveal an element of thought. The failure of the "nominal" aphasic does not exhibit a thought minus a certain name element. Neither do the defects testify to lack of intelligence. They indicate a difficulty in formulating a thought analysis and resynthesis in a certain direction and in expressing it, but the patient who cannot formulate his thought in one way may be able to do so in another. Striking examples of this are the patients who paraphrase situations they cannot name. There is no lack of intelligence in the lady who, in reply to the question, "What is your name?" answers, "Yes, it is not Mt. Everest, Mt. Blanc, blanchmange, almonds put in water—you know, you be clever and tell me." So far as there is hindrance in a free formulation and use of symbols, there is a loss of freedom in thought processes; thought is lamed and will suffer in proportion to the gravity of the handicap. Vigilance is lowered. "Gross organic injury does not remove the structural basis of a 'faculty' or the repository of 'images,' but disturbs the march of events necessary for the perfect accomplishment of some acquired act." (Head, *Brain*, XLVI, p. 427.) "The loss of function is determined by failure of physiological potency, although it is expressed and can be alone recorded in psychical terms." (Head, *Aphasia*, Vol. I, p. 512.) It is just because the failure is thus recorded that this research is a study of mental structures. Consider the "hand, eye and ear" test. The patient who sees the movements of the hand and arm of the experimenter standing behind him

reflected in a mirror, has no difficulty in matching them with his own, but when he is seated face to face with the experimenter he may find a difficulty in moving the correct limb in imitation of the exhibited movement. The necessary reversal of left and right cannot be effected by simple matching. Reinterpretation of the given situation is necessary before it can be imitated. This comparatively simple test affords a glimpse of the organization which renders a reinterpretation of spatial relations possible. Similar evidence is given by the patient who can draw pictures of the objects in his ward, but cannot produce a ground plan of it. He sees images of the objects, but cannot express diagrammatically their spatial relations to one another. When given a rough parallelogram drawn on paper he can indicate the required positions of door, window, table, etc., but he cannot himself formulate these relations and express them symbolically. The man who knows the number of two-shilling pieces he should receive in change for ten shillings when buying tobacco, but is at sea if given the sum in shillings; the patient who can build up from a heap of money sums which are the equivalent of a given coin, but who cannot express the relative values of the separate coins to the given coin; all these cases exhibit failures which help us to conceive the plastic organization in the mind of the normal adult within which these relations can be formulated.

These are but a few samples of defects covered by Sir Henry Head's phrase, defects in symbolic formulation and expression. They are sufficient, however, to suggest the rich store of material which the tests have revealed; and sufficient, I hope, to justify my contention that work of this character opens up fresh avenues for a psychology which might appropriately be called "structural."

A psychology which studies the organizations which control, and are in turn controlled by, the function of mental events is nothing new. Herbartian psychology was "structural" in

this sense. Apperception masses were mental structures. Professor Stout's *Analytic Psychology* is concerned with structure formation: Noetic synthesis, Relative Suggestion, Apperception. Dr. McDougall's treatment of instinct might be regarded as structural; likewise Mr. Shand's study of sentiments.

One may perhaps indicate a speculative question raised by the proposed interpretation of structure, viz., whether this view of function and structure enables psychology to dispense with a theory of traces or dispositions in its attempt to explain memory. I have elsewhere tried to show that neither the late Professor Semon's theory of mnemic causation nor that suggested by Mr. Bertrand Russell furnish an adequate basis for memory. The engrams of the former are residual physico-chemical modifications of the nervous system. His mnemic effects are not different from other physical effects. Mr. Bertrand Russell "accepts a past event not merely as a member of a chain of events leading up to the present event, but as itself constituting with the present conditions the proximate cause of the effect in question." (Edgell, *Theories of Memory*, p. 104.) Even if we accept this as a new and possible theory of the causation of imagery, it is in itself inadequate as an explanation of memory. Dr. Broad, however, criticizes the theory itself, and he maintains that, if accepted, it implies, like the theory of traces, persistent conditions, the difference being that the persistent conditions here implied are general instead of particular, viz., the general integrity of the brain and nervous system. (Cf. Broad, *The Mind and its Place in Nature*, p. 458.)

Dr. Broad himself sketches a theory of purely mental traces. The theory is independent of the conception of mind as a mental substance. Mind is conceived as a continuous stream of processes, the gaps between the events of which we are conscious being filled by unconscious events. These events (conscious and unconscious together) are thought of as overlapping in

such a manner that an event "E" occurring at "t" may modify the previous events which are continued after "t." This "E" modification of those events will, in its turn, modify subsequent events which overlap with members of this group, "very much as a scar is imposed in new matter which comes to an organism from outside." "The trace is not itself a mental event, but is a characteristic modification in the qualities of mental events, or in the relation which binds contemporary mental events into a single total state of mind" (*ibid.*, p. 466). Such a conception will preserve the temporal continuity of events. It reminds one of Professor James's doctrine of the passing thought which is "born an owner and dies transmitting whatever it realized as itself to its own later proprietor." The question is, how much of itself does it realize? How, in the ever-growing snowball influence of modification after modification, does the specific character of any particular event or any group of events at a particular past time determine the specific character of an event in the present? We seem to need some further hypothesis by which birds of a feather would flock together: sounds would modify sounds, colour colours, and so on. In the case of the scar the organism effects just such a sorting of materials. From the definition of "trace" quoted above, Dr. Broad appears to hold that not only the qualities of the events are modified, but also the relations in which the events stand to each other. I am not quite sure what is meant here by relation, but I fail to see how the "R" of one totality of events is causally related to the " R_e " of an overlapping totality which is modified by E. The character of any R seems to me to depend entirely on the events related, and not on the previous R. There need be no "trace" of R_1 in R_2 . Moreover, presumably, the connection between events and R is not a causal one. The mental traces suggested as possible by Dr. Broad do not promise to help the psychology of memory

very effectively. If we are to believe in persistent traces and dispositions, I think we must give up the attempt to regard them as mental, and fall back upon traces in the central nervous system. I gather this is Dr. Broad's own belief. "If we try to correlate the causal characteristics of minds with minute *spatio-temporal* structure we are forced to ascribe this structure to the brain and nervous system and not to the mind itself. . . . The mind in abstraction from the brain and nervous system will be a mere set of mental events with many gaps and a very imperfect internal unity. It might be called an 'incomplete substance.' The only complete mental substance will be not merely mental but also material; it will be the 'mind-brain,' if I may use that expression" (*ibid.*, p. 439). May we not, however, abandon a belief in "traces"? Is there not the possibility of admitting that our conception of cause is inadequate and unhelpful when used of mental events in relation to mental function. May not sameness of function, having reference to office within an organization, dispense with any demand for sameness in event in the sense of persistent identity or chainwise carry-over? May not the sensations of to-day, the image of to-morrow, and the image of next week serve the same function of referring to x without any pretension to a persistent existence as the same event? Sameness in function and sameness in structure will be interpreted qualitatively, not existentially. But it is time to return to the main theme and to conclude my advocacy of the study of structure.

To be profitable there must be a close association between structural psychology in the sense I have described and functional psychology of the broadest type. There are many indications that we may look for advance from such co-operation. The study of the functions and structures impaired by disease or by natural decay, study of functions and structures in their simpler forms among primitive peoples, and in the developing

individual, will furnish material from which we may arrive not only at a knowledge of particular mental structures, but at that which must represent the organization of all structures the structure of mind.

II.—SYMPOSIUM: THE NATURE OF "OBJECTIVE MIND."

By H. WILDON CARR, A. A. BOWMAN, J. A. SMITH.

I. *By* HERBERT WILDON CARR.

1. *Definitions and Meanings.*

THE phrase "objective mind" (*der objective Geist*) is used by Hegel in the third part of the *Encyclopaedia of the Philosophical Sciences* to denote the second of the three stages of the development of mind (*Geist*). The first of these stages is mind subjective, or mind in the form of self-relation. The second is mind objective, or mind in the form of reality. The third is mind absolute, or mind in its absolute truth. The second stage is further characterized as that in which freedom presents itself under the shape of necessity. It is also that important conception of mind embodied in institutions—social, economical, religious and political—the conception which Hegel has worked out in fuller detail in the *Rechtsphilosophie*.

2. *The Subject to be Discussed.*

The subject is proposed to us in the form of a theme, and not in the form of a particular problem, or as a question to which an affirmative and a negative answer can be given. This need not be an embarrassment, but it throws on the opener the duty of presenting a thesis which will call forth divergent views.

If the object of the symposium were to invite discussion of the whole problem of the Hegelian philosophy, its method and its system, then the part selected would be as good a point of

entry as any other. I do not propose, however, to make the Hegelian philosophy my theme, but to deal with the very definite and specific doctrine indicated by Hegel in the phrase "objective mind." The question which I shall invite those who are to follow me to discuss is: What, if any, is the relevance of the Hegelian conception of objective mind to our modern scientific problem of the nature of the physical universe?

3. What is Living and What is Dead in the Philosophy of Hegel?

It is quite impossible, however, for anyone to deal with the particular problem to any profit without first defining his own attitude towards the Hegelian system and method generally. I shall, therefore, begin by stating, as definitely as I can, what I think is living and what is dead in the philosophy of Hegel.

There is a general consensus of opinion among all the modern exponents of Hegel that one part of that great system is completely dead, and the only question in regard to it would seem to be the most decent method of burial. This is, of course, the Nature-philosophy. Croce condemns it outright. McTaggart included it in a general rejection of all Hegel's applications of his logic. It is the logic, and not its application, which, in McTaggart's view, is the thing of value in Hegel. McTaggart thought that a definitely false step was taken by Hegel in the transition from the Absolute Idea to Nature, and though he followed the dialectic of the Philosophy of Mind, he disagreed with the final triad and instead of philosophy as the synthesis of art and revealed religion, he proposed to take religion and philosophy as together the antithesis of art, with the concept of the higher stage left unrevealed and waiting to be manifested. A recent exponent, Mr. W. T. Stace, declares in effect that the Nature-philosophy can be lopped off the system, not only without leaving a blank or a scar, but to the positive advantage of the philosophy itself. There has not been, so far as I know,

any English translation of the Nature-philosophy, no English philosopher having deemed it worth while or experienced for it the necessary enthusiasm. I am probably one of the very few of the modern Hegelian students who can even say they have taken the trouble to read it.

I agree completely with those who think the Nature-philosophy is no longer a living issue. In it Hegel carries his dialectical method into science, and applies that method with unbounded confidence to the solution of matters of fact in all their detail and particularity. Indeed, no one who is really acquainted with the treatment of particular problems in the Nature-philosophy can think there was anything unfair in Herr Krug's famous challenge to Hegel to deduce the pen with which he, Krug, was then writing. Hegel is really committed to two things in his Nature-philosophy, first, to the claim that dialectic is the one and only method in physical science as it is in logical science and philosophy, secondly, that the experimental method is pure irrationality. Consequently, we find him using the dialectical method in ways which seem to us utterly extravagant, and overwhelming with sarcasm and ridicule those who employ the experimental method.

The view I take of the matter is that Hegel is entirely right in following the dialectic into the opposition of Logic and Nature. The transition from the Notion as the Absolute Idea at the end of the Logic to Nature or pure externality as its negation, is the pivotal transition of the whole Hegelian system. Reject that and the whole philosophy comes to nought. There is to my mind no more irresistible step in the development of the logical process than that which occurs at the conclusion of the Logic where the self-contained Notion finds itself confronted with its opposite, Nature, which opposition it must overcome. How any Hegelian can imagine that he can skip over this stage and enter straightway into the third stage, the Philosophy of Mind, passes my comprehension.

It is not the passage from Logic to Nature which is the dividing line between what is living and what is dead in the philosophy. It is in the Nature-philosophy itself that Hegel has failed, and he has failed simply because he was unable to rationalize the experimental method. Why did this method appear to him as unreason? Why did he condemn it and ridicule it as charlatanism? The fact that he did so, for us who have lived through the scientific development, is so amazing that we feel that for his good credit as a philosopher we ought to find some apology. Yet the reason is simple enough and not far to seek. Hegel was entirely under the influence of Hume's sceptical conclusion in regard to the idea of a necessary connexion between matters of fact. If Hume's argument was good, then whatever practical use might be made of experiment, it was a method essentially irrational in its inception. Even the Kantian answer to Hume, the theory of the *a priori* synthesis would justify Hegel in rejecting the experimental method and substituting for it the dialectical. There was, however, a real answer to Hume which would rationalize the experimental method. It had come from Leibniz, and it had come, in fact, before the sceptical issue of empiricism by Hume had been formulated. It is the principle of individuality which alone rationalizes the experimental method. It is because the constituent substances of the real world are individual agents, expressing their own nature in their activity, that experiment is not only justified but is the only rational method in science. I am pleased to see the recognition of this important fact in Professor Mackenzie's valuable article in *Mind*, January, 1927, entitled "Time and the Absolute." "The Hegelian philosophy," he says, "is defective from the lack of the conception of a multitude of finite worlds or universes—a conception that was only made definitely tenable by the discoveries of Einstein." "The 'creation of creators' has to be thought of as involved in the nature of the Absolute

from the beginning." This was Leibniz's doctrine, and had Hegel been philosophizing in this twentieth century instead of in the nineteenth, the scientific position itself would have compelled its recognition, and the Nature-philosophy would have been developed on an entirely different plan.

It is easy to see, I think, why Hegel turned his back on the monadic way of solving the problem of the externality of Nature. It was because Kant had left the problem of external reality as an antinomy of reason, in his doctrine of the unknowability of things in themselves. It seemed to Hegel that there was one only way in which externality could be transcended, and that was by universalizing and refusing to individualize knowledge.

My attitude, therefore, to the Hegelian philosophy is: that it stands or falls by the legitimacy of the logical transition from the Notion to Nature: that the Nature-philosophy is defective by reason of its failure to allow for the existence of finite centres and their creative activity: that those who accept the philosophy can and must make good this defect: that modern science and in particular the principle of relativity with its insistence on the subjective conditions attached to all co-ordination of natural phenomena enables us to make good this defect.

4. *The Concrete Universal and the Concrete Individual.*

I will now apply this criticism to the particular conception of objective mind which is the theme of this symposium. I will illustrate my thesis from the two crucial transitions in Hegel's dialectical chain which bear directly on his conception of objective mind, viz., the transition from the Notion when it has developed into the Absolute Idea to Nature, and, the transition from free mind to objective mind in the Philosophy of Mind. The two transitions are intimately related, though they are widely separated in the procession of the categories. What I want to show is that in each case we find Hegel's doctrine of the concrete

universal blocking the concept of the concrete individual. The reason is clear. The principle of individuality implies, or rather it directly affirms, that there are things in themselves, *i.e.*, there are real agents who can be known and recognized by their agency at the same time that they are by definition unknowable in their agency or existence. This involves an epistemological impasse. The unknowable, as Kant conceived the thing in itself, and later as Herbert Spencer put it forward as a first principle, is a logical self-contradiction. Hegel finds in this very self-contradiction a way of escape. It is for him the perfect illustration of his great discovery, the dialectical process. In positing the unknowable as existence thought is actually negating its negation and passing to new and higher affirmation. What Hegel does not see is that the principle of individuality requires that the contradiction shall not be overcome. If we can know the individual agent as it is in itself we are thereby contradicting the nature of the individuality we are supposing ourselves to know. I will illustrate this from particular passages in Hegel's work bearing on his conception of objective mind.

5. *Hegel's Category of Cognition.*

At the close of the *Logic* and before the final category of the Absolute Idea is reached, Hegel deals with the category of cognition. In a most illuminating section (226) he examines the ground of its finitude. "The finitude of cognition," he says in the *Zusatz*, "lies in the pre-supposition of a world already in existence, and in the consequent view of the knowing subject as a *tabula rasa*." He then describes this view as an "outside theory of knowledge" (*eine äusserliche Theorie der Erkennens*). Here we may recognize the old doctrine of the common-sense school and the new doctrine of modern realism which adopt the correspondence theory of truth. Now, if Hegel rejects, what on his own principle he must reject (and I would add what on any

philosophical principle must be rejected), the irrational idea that the activity which produces cognition is an outward activity in the object ; if he accepts the contrary view that cognition in the mind can only arise as an expression of the mind's own activity ; two alternatives are open to him for the interpretation of external reality. External reality may arise as the antithesis to the subjective act which is thought thinking itself. In this case externality will be generated precisely in the way in which an artist objectifies his creation and bestows on it independent existence. Or it may arise in response to the mind's need to give objective form to a reality which it experiences as an opposing activity, and then the mind will be responding to a resistance or limitation and the whole form of the cognition will be inwardly fashioned by the activity of the mind itself. The first alternative appeals to the universalizing activity of thought, the second to the individualizing. Hegel chooses the first. It would not be right to say he rejects the second, for he nowhere shows himself conscious of it. This is unfortunate, for had he recognized the externality of Nature as being, not the negation which the absolute idea by the dialectical movement of thought opposes to its own self-affirmation, but the internal reflection of an opposition external and unknowable in itself just because it is, like the mind's own activity, individual, he would then have been able to rationalize the experimental method. If the monads are the real atoms of nature, as Leibniz held, then not only will their real nature be revealed by experiment but it can be revealed in no other way. It is very instructive to see how Hegel proceeds. "When finite cognition presupposes what is distinguished from it to be something already existing and confronting it—to be the various facts of external nature or of consciousness--its activity consists in analyzing the given concrete object, isolating its differences, and giving them the form of abstract universality, or it leaves the concrete thing as a ground, and by setting aside the unessential-

looking particulars, brings into relief a concrete universal, the Genus, or Force and Law." We see by this that the guiding principle of Hegel is that existence in every aspect of it must be within the activity of the dialectical process itself, otherwise there would be a reality effectively outside the knowing relation. This is, of course, the valuable principle that there is no real other to mind, that the real is the rational, but the principle could have been saved in another way and consistently with the recognition of individuality. If the other which confronts me in knowing it is an opposing activity it is not outside the knowing relation, because in knowing it I am confined to my standpoint of knowing it as it is reflected back to my own activity, and because I cannot know it from its own standpoint of direct self-expression. The thing-in-itself, which it is the main purpose of Hegel to transcend, can be transcended by recognizing individuality as well as by denying it or by declaring it, in Bosanquet's familiar phrase, to be adjectival. In knowing the individual we recognize its unknowability, and in recognizing the unknowability we know the individual. It is only a seeming paradox. It means that cognition in its very nature is reflection.

6. *Free Mind and Mind Objectified.*

The transition from *Logic* to *Nature* which I have been defending is one which practically everyone either attacks or qualifies with modifications which destroy its value. I now turn to one of the transitions which every Hegelian accepts and which even to the anti-Hegelian appears as the substantial part of the edifice. This is the process or development by which mind objectifies itself in social, political, legal, moral and religious institutions. It is not easy to indicate the particular point I want to criticize by an actual quotation. I will therefore give a general reference to section 482 of the *Encyclopædia*, the transition from *Der freie Geist* to *Der objective Geist*.

It is quite evident that in this part of his system Hegel has continually before him the Kantian distinction of the theoretical and the practical reason, but instead of holding the two realms apart as Kant does, he by means of his dialectic achieves an active transition from one to the other. It seems to me that we have in this whole conception of objective mind a weakness due to the overlooking of the essential part played by the principle of individuality. What I mean is that Hegel would have made his conception not only richer but also incomparably more fruitful had he followed the clue which was so clearly indicated by Leibniz, the idea that reality is individual through and through, that when individuals are found subserving a higher purpose, as in the City of God or even in the mind-body organization, it is never the individuality of the individual which is transcended. When an individual subserves the activity of what Leibniz called the dominant monad or entelechy, its subservience does not in any way impair or render nugatory its own full individuality. Leibniz expressed this in his theory of pre-established harmony. I have tried elsewhere to show that on modern scientific principles the harmony can be interpreted as natural and self-created. Hegel, however, takes an opposite direction. What he says in effect is, that the mind wills itself as its object, *i.e.*, aims at actualizing its own true being, and that in this developing and self-unfolding it passes out of its finite individuality to universalize itself as law and order and genus. It is true, of course, that the principle of individuality finds full expression in the Absolute, but this is the crucial point, for individuality is only realized in the Absolute by the complete supersession of finite individuality. The concrete universal appears to Hegel inconsistent with concrete finite individuality. This leads him to suppose that there can only be a general will when individuals pass out of their individuality; that there can only be a social organism when individuals sink their individual

ends in social ends ; that there can only be a state when private interests are subordinated to the general good. Leibniz had already pointed out that this supersession of individuality is certainly not true of the living world (and for Leibniz the physical world was the living world) for the principle of individuality is evident wherever there is organization. The individual cannot be penetrated or divided on any principle whatever, and in all organization the individuals are over-ruled without any interference with their individuality.

7. The Hegelian Method and Einstein's Principle.

The definitive answer to the metaphysical problem has come from science, and more especially from mathematics and physics. The principle of relativity justifies abundantly the Hegelian conception of objective mind so far as the substantive fact that the physical universe is an active construction of mind is concerned, but it corrects the Hegelian principle in that one respect which made it impossible to reconcile with scientific method, its insistence on the irrationality of experiment. It is not universal thinking which creates the world but individual thinking. We can give a rational account of individual thinking. We can show as Einstein does that it is a necessary condition of our human form of activity that we should co-ordinate the universe, and from the necessity of co-ordination we can deduce the conditions. But how can we give a ground for universal thinking and more especially for its creativeness ? It is as Professor Mackenzie remarks in the article referred to, as unintelligible and as unanswerable as the child's question " Who made God ? "

8. Can Reality be Completely Rationalized ?

Those who recall the memorable symposium on the subject of Finite Individuality, in which Dr. Bosanquet, Prof. Pringle Pattison, Lord Haldane and Prof. G. F. Stout took part (Supplem.

Vol. I), may think that I am raising the same question. I am not, however, considering now the status of finite individuality, whether in the words of that discussion it is substantive or adjectival, but the *fact* of finite individuality in so far as it affects the conception of objective mind. I am asking you to consider the process by which according to Hegel thought objectifies itself, the process which he names dialectic and ascribes to universal thinking. My thesis concerns the Hegelian dialectic itself. I think that Hegel's failure is not excess of zeal in the application of the dialectic, but shortcoming in realizing its universal effectiveness. The real can be rationalized, but it is only completely rationalized when the negation confronting thought is recognized as an opposing activity itself individualized, and when it is seen that mind objective, whether it take the form of scientific reality as Nature, or the form of society in political and religious institutions, does not break down or destroy individuality. We may see in nature everywhere, what we see in society, the principle of entelechy, the creation of dominant individuality in the subservience of subordinate individuality. The individual activities which subserve the dominant entelechy suffer no diminution or restriction of their own self-determination.

Throughout the whole development of his system Hegel opposed the dialectical method of philosophy to the experimental method of science as rationality to irrationality. He was justified in so far as science showed itself quite unconcerned to rationalize its method and fell back on the pragmatic test of success. Hegel could have rationalized the experimental method if, instead of following Hume in denying that there is any necessary connexion between matters of fact, he had recognized the universality of the principle of individuality according to which every real is actively expressing its own nature. Had he fallen on this scheme of rationalization he would have given the philosophical correction

to Newton's metaphysics corresponding to the scientific correction which Einstein has given to Newton's physics.

Finally, I will throw down my challenge to those who are to follow me in this symposium. First, I claim that this interpretation of the conception of objective mind gives us the refutation of modern pragmatism, for it offers a rational alternative alike to the correspondence theory and to the coherence theory of truth. Truth is the satisfaction of our rationalizing activity; it is logical value. The test of truth is not the pragmatic test that it works, but the logical test that it rationalizes the real. The two logical principles, the principle of contradiction and the principle of sufficient reason, are themselves rationalized by the metaphysical principle of the individuality of the real. Modern pragmatism seems to me to be based on the implication that the experimental method, judged by any logical or intellectual criterion, is irrational; that the method is justified not by theory, but by practice. Hegel no more than Hume could rationalize the experimental method. If, as I think, it can be rationalized, then pragmatism has no *raison d'être*.

Second, in a poetical simile Prof. J. A. Smith has described mind as the light of nature. I find it difficult to accept this in place of Hegel's phrase, "Mind is the truth of Nature." I may have been misled by analogy and mistaken the meaning, but if the conception is that there exists a nature which needs illuminating and that mind supplies that illumination, I must dissociate from such interpretation the conception of objective mind which I have tried to present. For me there is activity which I experience directly within me and recognize confronting me, and my need is to rationalize it. This rationalization is, as Hegel held, and as Einstein's principle implies, an active process.

II. *By* ARCHIBALD ALLAN BOWMAN.

THE question with which we are invited to deal has been stated for us in very precise terms. We are asked to discuss the relevance of Hegel's conception of objective mind to the modern scientific problem of the nature of the physical universe. It is obvious, however, that more is expected than a mere assessment of the Hegelian conception in the light of science. Professor Carr has not only advanced a very definite criticism of Hegel; he has offered us an alternative theory of his own; and in view of this the challenge of his argument assumes the form of an appeal from monistic to monadic Idealism, as an explanation of the scientifically knowable character of the real world. With what he has to say as to the inadequacy of Monism I am in agreement; but I cannot accept Monadism as a substitute.

Let me indicate where the monadic theory seems to lose the support of experience. In a word, it does so the moment we try to universalize it. Monads exist: they reveal themselves to us in the identity of our own subject-selfhood. But it is one thing to admit the existence of monads, and quite another to maintain that nothing else exists, and that our experience of the outer world can be rendered intelligible upon such an assumption and upon no other.

In order to make the standpoint of monadism clear, we have to push two opposite ideas to extreme limits. On the one hand, the experience of the monad, which is its self-expressing, active reality, is all-inclusive. There is nothing in the world—no fact, no event, no change—that the monad does not realize as a predicament of its own internal life. It is actively sensitive, inwardly responsive, to all that is. On the other hand, the monad is

exclusive of all except its own internal states. Its isolation is absolute. Nothing passes to or from it. Such being the case, all that is implied in the terms *otherness*, *externality*, *nature*, must somehow realize itself as the inner experience, the self-expressing activity, of *subjects*. The question therefore comes to be, how an inner experience of the self can be at the same time the experience of an outer world. Professor Carr's answer would be that the activity which we experience within us (to keep the argument on the plane of human consciousness) includes a sense of opposition -- the opposition of an activity which we recognize as not our own, but which is otherwise unknowable.

Nature, then, is revealed to us as the counterthrust of an activity brought to bear upon our own activity. Of this alien force, or the individuals whose force it is, we can know nothing, and our consciousness of them and of it must be expressed in some such phrase as "internal reflection." I must admit that the difficulties of this conception are to my mind insuperable.

To begin with, I do not wish to deny that we may know what it means to experience the opposition of an alien activity. On the other hand, I recognize the fact that the felt opposition is a predicament of *my* experience, and that I do not experience the alien activity as such. The latter belongs, not to my experience, but to the experience of the individual, the self, whose activity it is. Now, assuming this to be an exhaustive account of the case, we shall have to suppose that the total experience consists (1) of a consciousness of inner activity as such, and (2) of a consciousness of the latter as inhibited. But since the consciousness of inhibition, like the original consciousness of activity, is an inner experience of my own, it must be interpreted in the same sense as the latter -- namely, as *my activity*. What we have, therefore, is a total experience in which I become aware of an activity of my own in conflict with another activity of my own -- in brief, an experience of inner disharmony. It seems a long

step from such an experience, an experience in which two forces divide themselves within me, to an experience in which I divide myself as a whole from a world which is wholly without.

A second main difficulty has to do with the relation between monadism and the experimental method. "If," Professor Carr writes, "the monads are the real atoms of nature, as Leibniz held, then not only will their real nature be revealed by experiment, but it can be revealed in no other way." That the real nature of things is at least to some extent revealed by experiment I should not wish to deny; and I think that experiment is involved in any attempt to know the nature of the world. What I cannot see is how the real nature of *monads* can be revealed by experiment if, as Professor Carr maintains, the principle of individuality requires that the contradiction of an unknowable thing-in-itself shall not be overcome.

This difficulty has not escaped the notice of Professor Carr; but he does not regard it as a real difficulty. "It is," he tells us, "only a seeming paradox." The paradox as he states it certainly looks formidable enough. "In knowing the individual we recognize its unknowability, and in recognizing the unknowability we know the individual." The solution which Professor Carr advances brings us to the crux of the whole question. "If the other which confronts me in knowing it is an opposing activity, it is not outside the knowing relations, because in knowing it I am confined to my standpoint of knowing it as it is reflected back to my own activity, and because I cannot know it from its own standpoint of direct self-expression."

The answer to this contention is really contained in my statement of the first difficulty: but a more explicit criticism is called for. If I might venture to paraphrase Professor Carr's words, what I understand him to mean is this. Granted that I can never know another individual as it exists for itself, because in order to do so, I should have, in effect, to become one with it

nevertheless there is one condition upon which it is possible for me to establish cognitive relations between it and myself. That condition is that the individual in question should be an opposing activity; for in this case its nature is revealed to me in my experience of what it means to feel my own activity inhibited.

The argument appears to rest upon a fallacy, which I think might be exposed as follows:

Suppose X and Y to be two monads. Each of these exists as a system of activities expressive of the monad's nature. It is impossible for X to know Y, because to know Y means to know *what Y is*, and this in turn means to know *what it is to be Y*, and, therefore, to have Y's experience of itself. The converse is equally true. Since, therefore, neither X nor Y can know what it is to be the other, or what the other is, it might seem that between X and Y there exists no relation which is X's knowledge of Y or Y's knowledge of X. Yet this does not follow. X and Y are each a system of activities. Well, then, let *abc* be among the activities of X, and *αβγ* among the activities of Y. At a point in the life-history of X, its activity *a* encounters opposition in the form of *α*. This opposition does not mean nothing: it does not leave the inner nature of X unchanged. Rather it reveals itself to X as a specific inner experience, a modification of its internal activity, which we may symbolize as M. M, then, is not an experience which X could have had of its own accord. It required the opposition of *a* to *α* in order to induce the experience M, which is a modification of X's inner nature. Hence M is the product of a relation between X and Y. It is necessary that Y should exist in order that M should occur as a modification of X. *In itself*, however, M is not a relation between X and Y, but a predicament of X— an inner activity, or a modification of such activity. It is an experience of X's, and is part of X's *experience of itself*: by no possibility could we rightly describe it as X's

experience of Y; and yet this is precisely what we are called upon to do.

The total position is expressible in the following antithetical statements. (1) Ontologically speaking, the existence of M implies the existence of both X and Y and of a relation between them. (2) Epistemologically speaking, the *nature* of M excludes everything that does not limit it to the inner life of X. Now Professor Carr's contention amounts to this, that we must interpret the first of these propositions from the standpoint of the second and the second from the standpoint of the first. In other words, he quite illegitimately (so it seems to me) insists on interpreting the ontological relation between X and Y, implied in the fact of M's existence, as equivalent to a cognitive relation between X and Y: and he violates the nature of M, which is X's knowledge, not of Y, but of itself, by interpreting it as X's knowledge of Y.

These errors are concealed by language. For example, Professor Carr speaks of the "opposing activity" as "not outside the knowing relations." The implication seems to be that the "opposing activity" is *cognitively related* to X or to X's activity *a*. But upon the view we are considering, knowledge is not a relation at all, but an activity. Or, if it may be regarded as a relation, the relationship is entirely *within* the knowing self: it is a relation between the states of the self or between the self and its states. Again, the opposing activity is referred to as "reflected back to my own activity." Reflected back from what? And in what sense *reflected*? The phrase seems to imply that it is the *other*, to which the opposing activity belongs, from which it is reflected. But, as we have seen, it is not *experienced* as belonging to another, but as an activity of the self; and therefore it cannot be *known* as reflected back from anything. It is further misleading to speak of it as reflected back *to* my own activity. For since no activity exists for me except my own, consistency of expression

would require me to speak of it as reflected back, not *to*, but *as* my own activity; and in this case the very idea of reflection becomes meaningless.

If these objections are valid, and not (as may well be the case) based upon some misunderstanding, they will, I think, prove rather damaging to Professor Carr's statement of the nature and value of experiment as dependent on the principle of individuality. That this principle is involved I do not for a moment doubt, and Professor Carr has done philosophy a distinct service in drawing attention to the importance of the fact. But the principle of individuality does not involve the whole doctrine of monads, and when so interpreted, it becomes positively fatal to the application of the experimental method.

Experiment is trial. It is an actively exploratory investigation of one nature by another - a placing together of two entities in the hope that their interaction will reveal something of their nature. It implies that whatever is ascertainable, by any such device, about the nature of the object-self will be reported in the experience of the subject-self. But it implies further that whatever the experience of the subject thus reports to him will be a revelation of the true nature of the object. Such at least is the theory and the justification of experiment.

Now the upshot of Dr. Carr's argument is that the experimental method yields a knowledge of the subject, that it is a revelation of the experimenter to himself. But I have tried to show that such a revelation cannot, upon monadic principles, be construed as a revelation of the nature of the object, the other, the outer world of nature.

Furthermore, it is difficult to see how upon any such principles the experimental method differentiates itself, and how it makes its first beginnings as a special development of human experience. Surely an activity of the subject, "confronted" by an alien activity, is not what we mean by experiment. The very idea of

experiment implies that the subject begins with an already developed sense of external realities, and that he assumes an actively exploratory attitude to the latter on the assumption of some sort of proleptic insight. The relationship involved is less symmetrical than is suggested by the mere apposition of conflicting activities, which from the standpoint of monadism seems to be all we have to go upon. It is not so much a case of the external factor wringing something out of the subject, as of the subject wringing something out of the external factor.

But above all, the outer world, and more particularly those *de facto* aspects of it that are revealed to us in the impersonal efforts of scientific inquiry, do not as a matter of experience normally report themselves in the form of an opposing activity. Activity implies an inner nature, a selfhood, of which it is the expression. Of such selfhood and such activity experience is the guarantee. Every subject of experience knows what it is to be a self and to be active. Moreover, every experience without exception is an experience of what it is to be a *subject-self*. But the subject-selfhood of which every experience is a revelation is not all that is revealed by experience. There is also revealed what it is to have an object. Now the question arises whether objects are selves, or rather, whether selfhood, individuality, which we have no difficulty in recognizing when it reveals itself to us subjectively, as what *we*, the subjects of our own experience, *are*, is capable of revealing itself objectively as well. Is it possible for us to recognize in an *object* of experience the same ontological irreducibility and inwardness of nature, the same indefeasible identity of being, which we recognize in the subject?

It would be impossible to deal adequately with such a stupendous question in the concluding sentences of my paper. But I feel that I shall have failed in my duty if I do not indicate the general form which any answer must assume, and so provide at least a

hint of what I have to offer as a substitute for what I have discarded in Professor Carr's theory.

I shall take appearances as my starting-point, and shall venture to assert that there is no such thing as an experience which is the experience of an appearance and nothing more. Appearances are not experienced in that way. They are experienced as members of series or systems of mutually transformable presentations—presentations, that is to say, which we interpret as the equivalent of one another. Of course, in any individual case most members in such a transformation series are ideally supplied, or they are merely understood, without being presented or even explicitly thought of. This, however, does not affect the fact that the members actually presented are experienced in relation to a series made up ideally, a series of which they are functions. More important still, the transformability of appearances, however it is realized in our experience of them, is a fact of the objective, and not of the subjective order. It is not something which we learn about ourselves (although in discovering it we may learn something about ourselves as well), but something which we discover about appearances, which are not selves at all. But even this is not a quite adequate or a quite accurate statement. For, strictly speaking, their transformability is not something (as the statement would seem to imply) which we learn to recognize in appearances, after we have come to know the appearances themselves. It is something which we discover about the *world*, and we discover it in the very process whereby we become aware that the world reveals itself to us in the system of its appearances. What we really discover, therefore (in addition to anything we may incidentally learn about ourselves as the subjects of our experience), is the fact that there exists a universal order in accordance with which appearances come and go, and which is itself as objective as the appearances which come and go in accordance with it.

Now there is only one way in which these facts about appearance can be formulated. We must think of appearances, as we experience them, not as independently existing things-in-themselves, but as definitely conditioned by a certain unique relation in which they stand—a relation, however, which is different from the relations in which they stand *to one another* and *to us*. That relation is expressed by the preposition "of," and is what we mean when we speak or think (as we usually do) of any appearance as an appearance *of something*—something that is not itself an appearance nor yet a conscious subject.

The question is: How are we to regard this *something*, to which the appearances stand in the prepositional relation denoted by the word "of"? The law of parsimony might seem to require that we should think of it as nothing more than the system or series to which all the mutually transformable appearances belong. But even if there is no more in it than this, it would be quite wrong to regard it as merely a number or class of appearances—so many appearances thought together. Besides the appearances it includes the law of their transformability, and this is neither a number nor a class. Rather it is ontologically prior to any single appearance in the series, and its existence is not dependent upon the conditions to which they are amenable. Many of the appearances in any series may be wanting owing to the absence of conditions under which alone they arise; and yet the reality of which they are the conditions may be unimpaired. It is necessary to think of this reality, therefore, in a way which is quite different from that in which we think of the appearances themselves. Both are objective. But the objectivity of the one is exhausted in the fact that it is presented, whereas the objectivity of the other is not so exhausted.

It is here that I find the answer to my question whether selfhood can reveal itself objectively as well as subjectively. The transformability of appearances is a revelation of something

in them other than their *de facto* literalness as appearances, something of which they are the manifestations and functions. This something is the individuality, the ontological self-identity of physical objects. In relation to their appearances the latter are things-in-themselves; but they are not on that account unknowable. They are known in and through their appearances, which, in relation to them, take on meanings which, as mere appearances, they do not possess. Rightly regarded, the appearance is what the thing-in-itself is or becomes under the limiting conditions necessary to render it an object of perception; and a knowledge of the appearance in the light of these conditions is a knowledge of the thing-in-itself.

Now the experimental knowledge of nature includes a knowledge of natural things-in-themselves. It includes other forms of knowledge as well—for example, the knowledge of conditions and relations. But, leaving these aside, we see that there is such a thing as the *inner* nature of objects in the *outer* world, and that knowledge may be experimentally directed to it. In this case the selves that are brought experimentally into apposition are not the self of the subject and another subject-self, but two object-selves: and the purpose of the experiment is to observe what modifications occur, as a result of the apposition, in the series of appearances whereby the apposed objects reveal their respective natures.



III. *By J. A. SMITH.*

PROFESSOR CARR'S paper has usefully cleared the ground for our discussion. I propose as far as I can to accept the exclusion of what he rules out as irrelevant. He states the general situation in a way with which I have no quarrel, and, as is his right as opener, he formulates what he wishes to have treated as the problem in issue.

Incidentally, he frankly discloses to us his attitude to the philosophy of Hegel, and clearly indicates the two transitions in the dialectical movement (which is the life of the living soul, or rather mind inhabiting its unwieldy body) where, according to Professor Carr, Mind jumps with shut eyes over unbridged chasms, that is, in less metaphorical language, where the steps of its procedure are not free, made not *proprio motu* but under a foreign compulsion. Undoubtedly, Hegel believed himself to have shown that in both these transitions Mind could see the why and wherefore of the steps it had taken, the reasons in its own nature for or in taking them. It was no inexplicable or miraculous accident in its self-development (the outgoing of its nature into existence) that it found facing it what was *prima facie* other than itself, first as "physical nature" and then as the contents of human history.

The only comment I make on Professor Carr's report of Hegel's doctrine is that the words he uses seem to imply that he takes Hegel to mean that at the end of the "Logic" the nature of the Mind has become completely known to itself as it is, or as the Absolute Idea which is at the same time the Absolute Reality or Fact. But surely nothing can be clearer than that Hegel does not, and cannot, mean this. What "Logic" as such

presents to us is avowedly an abstract groundwork, "a realm of shades or ghostly essences," in the study of which the Mind disciplines itself for a further and more important employment, in which latter, for the first time, it becomes *actual* Mind. When, having reached the end of this apprentice course, it looks back upon the self-knowledge it has thus gained, Mind, now turning away from itself, to where Nature and History present themselves to its gaze, seem to find itself empty-handed in the presence of their apparently inexhaustible riches. It, as it then knows itself, is certainly not the Absolute Idea (which is the Absolute Reality). Yet, so known, it may prove the key to unlock the doors to their mysteries, and may supply a principle of exegesis for their interpretation. Whether that is so can be determined only by the success or failure of the attempt so to explain or interpret them. And in this attempt the problem is whether what we call "Nature" and "History"—the whole of the "objective"—can be accounted for as, so to speak, visibly required in order that Mind, as in and through "Logic" we have come to know it, may fulfil the destiny to which the promise and potency therein contained appears to point, a fulfilment without which it would be and remain the empty and idle apparatus it then seems to be. Supposing that nothing objective were furnished to it from without, would it not, in order to promote itself to actuality, to realize itself, be driven to create for itself substitutes to fill their places? And is not, perhaps, the true account of their reality, that they *are* such creations or creatures, and that our knowledge of them is just the recognition by Mind of its own activity in giving to them such reality as they possess?

Now, if I understand Professor Carr rightly, he does not dissent from the main contention by which Hegel's answer is governed, viz. that in some sense Mind is the author of the whole of what seems to stand over against itself (its self as, so far, in and through "Logic" known to itself) as the Nature and the History

which the man of science and the historian investigate and explore. What he criticizes is the particular manner in which Hegel represents this generation by Mind of its object or objects. In effect, he proposes a rival representation of the manner in which Mind crosses both of the perilous passages or builds bridges from the subject to the object. I say a rival method for, like Hegel's, it is naught if it does not exhibit that passage (or these passages) as having reasons which Mind can apprehend, appreciate, and accept or justifying (*ex post facto*) its having made them.

I confess that I am surprised that any one should identify this question with any question raised or canvassed in modern science, or take it to be relevant to such a question. For myself, I am unable to see where its relevance would lie. Whichever or whatever answer to it we adopted, how could it affect the "truth" of any scientific statement or doctrine? Does modern science raise or attempt to answer the question, "What is the nature of the physical universe?" (in the same sense of "nature" as it is used when the question is raised in philosophy). To my mind scientific truth is in no way dependent on what sort of metaphysics is held by, or holds the mind of, the scientific enquirer, who, most wisely when he is engaged in his proper business, puts metaphysics and philosophy altogether out of court.

Anyhow, the problem here is a philosophical one. It is the question (I here for the moment confine it to "Nature") what, taking into account whatever science claims to have found out about its details, is the place of "Nature" in the universe, which contains along with it at least one other reality or claimant to reality? The Hegelian answer to that is, I take it, that "Nature" as a whole is a creature of Mind, and with this Professor Carr agrees as a correct interpretation of Hegel and also of the facts. What he objects to is not this, but a gloss or note (or rather two) which according to him Hegel (and Hegelians) put upon it, viz. (1) that the agent, and the sole agent, in this creation is single

and universal Mind¹, and (2) that in it that Mind proceeds by "the method of dialectic."

I will take the second point first. Professor Carr does not tell us very explicitly what he supposes "the method of dialectic" to be, and I will not attempt here to expound my own view of it. What he does is to set up against it what he calls "the method of experiment." This he takes to be the method by which the sciences have advanced, and he accuses Hegel of having misconceived and misrepresented it. However it may be worth its usefulness in science, he holds that it can be employed in philosophy only if it has first been "rationalized," *i.e.* shown to be rational. I do not know how he proposes that this should be done, but, at any rate, he assures us that it has been, or can be, done, at least where it presents itself in individual instances. "We can give a rational account of individual thinking" (which is, I suppose, always "experimental"). I should like to see this account more fully stated than in the sentence which follows the one that I have just quoted. All that I can gather (from elsewhere) is, negatively, that it is not "pragmatical," that its justification is not success in practice. Negatively, for the statements that it survives "the logical test," or is proved to be rational by rationalizing the real, are rather promises than themselves reasons. Still, I am glad to hear that it is (to be) justified in theory (not in practice), *i.e.* by the satisfaction its employment gives to our "rationalizing activity", that is, I suppose, to the way in which the results of its use fit in with the demands which our nature, as we know it, makes for its own ends. How this justification is to be accomplished otherwise than by the Mind's having tested and proved it as successful in the ordering of its own domestic affairs, *i.e.* in "Logic," I do not know: it must have made good there before it can with any confidence or hope be extended beyond it. That it celebrates its triumphs first and most clearly in the exhibition of the reason-

ableness of the individual thinkings of individual minds is to me rather novel doctrine. I should have thought that it was just where thinking (the use of *any* method) was least individual, freest from accidental and fortuitous companions, that its reasonableness was most evident.

This brings me to the other point, viz. that according to Hegel (as interpreted by Professor Carr) the agent, and the sole agent, that creates the objective ("Nature" and History) is singular, universal, infinite, whereas Professor Carr contends that it is plural, particular, finite. Against his positive presentment of the arguments for that rival theory I am pretty well content to say "ditto to Professor Bowman." Like him, I am unable to accept Monadism as a substitute for Monism, even if the latter were proved to be a complete mistake. But within the compass permitted to me I can say little about the issue between the one and the other.

Nevertheless, I think that Professor Carr takes Hegel's doctrine much too simply. He supposes Hegel to teach that the creative Mind is, though in it "the principle of individuality finds full expression," yet such as in its being completely to suppress all finite individuality, and that the same is the case with the universals which it creates. In the coming to be of the general will, "individuals pass out of their individuality"; in the social organism "individual ends are sunk"; in the State "private interests are subordinated." I find it rather hard to see the width of the difference, especially in the last case, between "subordination" (which is quite wrong) and that "subservience" and "overruling" (which is just right). What I am told the difference is, is that in such wholes as are to be found in Nature or History, and in the wholes which each of them is, and finally in *the* Whole, the subservient and overruled individuals retain their full individuality unimpaired and uninterfered with, whereas on Hegel's view their individuality is suppressed or obliterated.

I think Professor Carr supposes that that is what not only Hegel's words mean, but what he means to mean by them. I confess that it had not occurred to me to suppose that that was what either they or he meant. But I admit that texts might be cited from Hegel's works which might lend a certain plausibility to this interpretation; yet I believe that they would on examination prove to be no more than splenetic exaggerations called out by reaction against romantic, sentimental, anarchic extravagancies in the thought and language of his time and neighbourhood.

Per contra, I cannot construe Professor Carr's own language (which has no such character) except as committing him to the doctrine that whatever individuals are made, or make themselves, parts of any natural or historical whole recognized by him, their partnership in it neither impairs nor enhances "their full individuality"; they are precisely the same in it as they were or would be outside of it. They are absolutely impenetrable and impervious. They are organized *ab extra*, and the organization falls between and outside them, and with that their "subservience" and governance are but empty names. Surely it is quite impossible to regard the network of relations between them as spun by them. At most it can be but the private, the eternally private, product of the isolated activity of each, created by each for his private ends and confined to himself. Thus, all that would be possible in a monadistic universe would be an innumerable "multitude of finite worlds or universes" (Professor Mackenzie). The truth about "Nature" would be that it was a swarm of such finite worlds in no contact or interaction one with another. To think of it otherwise would be to think of it confusedly, *i.e.* mistakenly. If the discoveries of Einstein (no matter what their scientific value, of which I am no judge) have seemed to some to render such a philosophical doctrine "definitely tenable," I can only regret that

so apparently valuable a contribution to science should have such an effect outside it, but I do not think such an effect to have any reason for or in it. In fact, I do not believe that any scientific position can, or ought to, *compel* any thinker to take one view rather than another of the nature of the universe (or the nature of the physical, or the historical, universe).

The doctrine that what we call the objective world is, as a whole and in all its parts, created by the self-contained activities of the eternally sundered parts, which alone really and truly are, seems to me sheerly incredible. The facts are too strong for it, and we cannot deny them all. If the appeal to the facts be disabled (for perhaps we can come to no agreement as to what "the facts" are), I still appeal to our beliefs. Is anyone prepared to jettison his whole cargo of them--no less is required of him--in the wild hope of steering his empty vessel to the Happy Isles on the promise of the monadistic chart? For in the end monadism calls upon him to surrender his belief that there is *in* Nature or History an arrangement or order or organization to discover, nothing but what each individual monad has generated within itself and vainly endeavoured to project outside and interpolate it between itself and its fellow monads. Surely if "Nature" is built by individual minds it is built by them *together*, and if they can act or even be *together*, none can be what it is or do what it does if it possesses its full self in isolation just as well as in communion and communication with others.

The issue between Monism and Monadism is quite sharp and clear, though the chosen language of some Monists and some Monadists is often nearly identical. It turns upon the nature of not only [trans]actions between parts of the real, but all "relations" between them. Lotze puts the alternatives: *either* "ideas in a consciousness that imposes them," *or* "inner states within the real elements of existence, which according to our

ordinary phrase stand in the 'relations.'” Monadism, in its endeavour to construe “Nature” without remainder as the working out of “the principle of individuality,” puts all its money on the latter of these alternatives. It sees in “Nature” (and in history) that everywhere and that alone. It is obliged to pronounce all relations to be “groundless,” or to say (and is this really consistent with its principle ?) that their grounds (“objective relations”) “subsist not between them but immediately in them *as the mutual actions which they exercise on each other and the mutual effects which they sustain from each other.*” Is this not to run with the hare and to hunt with the hounds ? It is really open to us to maintain that the web of relations, which is “Nature,” is at once *in* its individual components and also *between* them ? Or at once put and found there by individual minds ? And finding ourselves in this tangle, have we a right to call in a *deus ex machina* to loosen the Gordian knot we have ourselves tied ?

At the end Professor Carr issues a personal challenge to me to defend a “poetical simile” I once used to express the nature of Mind. It was avowedly a metaphor, and halting at that. The analogy between physical light and spiritual intelligence is, of course, incomplete, as that between anything physical and anything spiritual must be. Yet it may diffuse a light or dispel a darkness, and its use in the history of philosophy seems to show that it is not unenlightening. On the occasion on which I employed it I tried to explain that its illuminating power was increased by the way in which the doctrine concerning physical analogue was being improved by science since it was first introduced as a term of comparison. I may be wrong about the direction in which the scientific mind is moving within its proper sphere, but what I had in mind was a change in its way of thinking of “natural light” as something not generated by the movements of individual illuminants, but as something which essentially travelled about

between them, or, quite simply, was "a mode of motion" or energy, not an inner change in the private or domestic arrangements of impervious particles of matter. In searching for a metaphor in "Nature" (where alone "metaphors" are to be found) I, perhaps, too eagerly seized on Light as most appropriate to my didactic purpose. Yet I am not yet persuaded that I was wrong. Has "Light" in physical theory (or practice) not come to enjoy some of that all-pervasive sovereignty which I ascribe in the spiritual (which is the only real) world to Mind? Metaphor (and poetry) may convey or contain a truth which they cannot fully express, and it is an old story that in "Nature" Light is "Heaven's first-born," its generation the first step in or towards the creation of the physical world. I do not see how physics could begin without taking for granted our experience of Light and some theory or understanding of that. From what other source, *e.g.* could we learn the meaning of "straightness," and where would our physics be without that? I very much doubt whether without Light we should have any notion of there being a "Nature" at all, in the sense on which physics takes its existence for granted, and expects it to be understood. Doubtless, Touch is a more fundamental sense, but the information about the nature of the physical world we get by it appears scarcely to admit by itself of development into physics. The common "Realist" substitution of tactual for visual metaphors to illustrate the nature and operations of Mind appears to me to spell sheer loss. Whatever knowing or understanding is, it is at least more *like* seeing in the light than touching or grasping in the dark, or feeling a possible (unknowable) something-or-other impeding our self-expressing activity, and it would surely be scientifically very unsafe to regard variations in such experiences as the only, or the best, evidence of what that unknowable other in detail was. In a word, this monadistic faith in the impenetrability or imperviousness of "reals" seems to me a mere prejudice resting on an

unjustified rejection of the evidence of Sight (and what it suggests) in favour of the obscurer testimony and intimations of Touch. It is against this mere prejudice (and as a deliverance from it) that I defend my metaphor. Sight implies Light as its condition, and Knowing or Learning implies a corresponding condition, in this case a condition supplied by Mind itself, which creates it, not severally each mind by and for itself, but all together or as being of one mind with one another. The thought of such a spiritual light is no more difficult (and no less, for it is the same) than that of a spirit which realizes itself, or is real, in a system of parts, within each of which it indwells and each of which it permeates, yet so that it is fully itself only in the whole and is exhausted in none or in any collection of them. Why should such a spirit be taken to have spent itself in creating them and establishing a harmony among them, retreating from all subsequent interference with them ?

III.—SYMPOSIUM: THE NATURE OF INTROSPECTION.

By G. DAWES HICKS, G. F. SROUT, and G. C. FIELD.

I. *By* G. DAWES HICKS.

WE shall be agreed, so I am going to take for granted, that in some sense a self-conscious and reflective mind can, as Locke said, take notice of its own operations, and is capable in some measure of attending to the successive phases of its own inner life. I shall confine myself mainly to an inquiry into the character of so-called introspection, and to an attempt to make out in what it essentially consists. It is, indeed, a curious circumstance that while psychologists have devoted immense labour to determining the precise nature of other mental activities—perceiving, imagining, desiring and so forth - few of them have submitted that of introspecting to a like careful scrutiny. They have insisted that introspection is the chief, the indispensable, means of obtaining psychological data, and yet have often been content to assert of it that “like many other things we do, we can do it very well without being able to say exactly how we do it.” But, if it be the business of the psychologist to investigate and describe the processes of the mental life, it is surely incumbent upon him to treat in a similar manner that process upon which he is mainly dependent for his facts and material.

The circumstance just alluded to is the more surprising because the process which is frequently named that of “inner observation” raises problems that are in many respects more perplexing and embarrassing than those raised by the process of external

observation. Well-nigh every treatise on Psychology starts by dwelling upon the peculiar difficulties and drawbacks of the former process as compared with the latter, and by insisting upon the necessity of supplementing it by having recourse to other methods of securing psychological data. It may be, I think it is, the case that certain of these difficulties and drawbacks have been unduly accentuated. But, whether this be so or no, the fact remains that they are sufficiently prominent to call forth an effort to clear up the obscurity that attaches to the notion of introspection.

The obscurity is, no doubt, partially due, as Dr. Broad suggests, to the ambiguities of the term which arise through failure to recognize many necessary distinctions that require to be taken into account. And upon one of those distinctions I would lay emphasis at the outset. Quite obviously we require to differentiate what Dr. Broad calls "inspection" from "introspection proper."* By "inspection" he means attention to *sensa*, images and bodily feelings, in and for themselves, with a view to determine their characteristics, whereas ordinarily we perceive *with* them, or *use* them for perceiving, certain physical objects. On the "*sensum* theory," according to which so-called *sensa* are existents, distinct both from physical objects and from the mind of the percipient, "inspection" would not, of course, be describable as a mode of introspection at all. But, even if *sensa*-data and images, or presentations, are taken to be existentially and qualitatively mind-dependent, to "inspect" them will plainly be a process very different from that of noticing or scrutinizing mental operations. For the contention of those who conceive "presentations" to be mental entities is that, although "presentations" are immediately experienced, they are none the less primarily objective, that they form part, in other words, of

* *The Mind and its Place in Nature*, p. 295 *sqq.* Professor Stout insists upon what is essentially the same distinction. (See *Manual*, 3rd ed., p. 46.)

the total object which is before the mind in its apprehension of physical things. According to this theory, therefore, "inspection" will still be a process of attending to certain objective factors. Unquestionably, whatever view be taken of the nature of sensible appearances—and neither of the two theories I have mentioned seems to me satisfactory—the careful inspection of them is an important branch of psychological work. Nevertheless, it is not introspection; and to speak, as, for example, McDougall does, of being "interested in qualities as such" and learning "to think of them in abstraction from the objects they signify" as *the* "introspective attitude"* indicates, I think, a confusion that extends beyond the mere misuse of words.

1. I shall understand, then, by the term "introspection" the act of attending to or reflecting upon states or events that are indubitably mental, that indubitably form part of our mental history. And, with respect to it, there are, I venture to assume, three propositions one may lay down before entering the region of controversy.

(a) It will, I take it, be conceded that there is an essential difference between the mere presence or occurrence of a state or process of mind, a particular mode of being conscious, on the one hand, and an attentive, reflective consideration of that state or process, on the other hand. The former is manifestly a necessary condition of the latter, but it is no more identical with it than it is with any of the other developed forms of mental activity. It is not needful for the existence of any of our experiences that we should "observe" them; but, if those experiences are to form part of what we recognize as our individual mental life, it is needful that we should be conscious of them, or, more accurately, conscious in and through them. I say "conscious in and through them," because that phrase expresses with greater

precision what I take to be the fact that each distinguishable mode of the mental life—be it a mode of perceiving or of remembering or of desiring, etc.—is a way in which the individual subject experiences or is aware, whereas the phrase “conscious of them” would seem rather at once to suggest the process of “inner observation,” in which we try to make an experience matter of special consideration. Mental states are not primarily, at any rate, objects which the individual subject dissects from himself, or, to employ Hamilton’s terminology, projects, as it were, from himself, but ways in which he becomes himself. Relative to what is implied by the general term “consciousness,” introspection is, that is to say, a secondary, superadded, process; it is not involved in the fundamental fact of being conscious.*

(b) Attentive consideration of mental states implies not only a certain material which is there to be reflected upon, but likewise a certain set of concepts or general notions by means of which that material is interpreted. And these play in so-called “inner observation” a part similar to that which they play in outer observation. They direct, control, and not seldom distort the observation itself. Not only so. The general notions which in the attempt to introspect mental states we bring to bear have themselves been gradually acquired: they are, it may be said, of the character of hypotheses that have become

* There is no need for me to comment upon the woeful ambiguity of the term “consciousness” itself. It has, of course, frequently been employed as virtually synonymous with the term “introspection,” or, at least, with the term “inner perception.” Thus, according to Reid, “consciousness is a word used by philosophers to signify that immediate knowledge which we have of our present thoughts and purposes, and in general, of all the present operations of our minds” (*Works*, p. 222); while, according to Hamilton “the knowledge which I, the subject, have of the modifications of my being, and through which knowledge alone these modifications are possible, is what we call consciousness” (*Lectures on Metaphysics*, I, p. 192). But no one, I imagine, would now wish thus to restrict the significance of the term.

current respecting the mental life as a whole—its essential structure and its specific activities. In forming these hypotheses, the human mind has naturally been dependent upon such knowledge as it had attained not only of the mental life itself, but also of the external world within which the mental life runs its course. Consequently, it is inevitable that there should be applied to the mental life ideas or hypotheses which were originally framed for explaining an order of facts other than the order of mental facts. And this characteristic of the thoughts which we carry with us to the investigation of psychical processes—namely, that they have, for the most part, been developed without special reference to the peculiar facts of the mental life itself—constitutes beyond all question one of the main obstacles which stand in the road of impartial psychological inquiry. Such pre-conceptions may act detrimentally in two ways. They may induce us to overlook what is there to be noticed, and they may lead to our importing into the facts with which we are concerned features which are, in truth, features only of our representative ideas. What is requisite is not, of course, the absence of interpreting notions, because without them no systematic process of attention of any kind could be carried out at all. What is requisite is their appropriateness, and for the acquisition of appropriate notions, we are ultimately thrown back upon purely theoretical considerations.

(c) Since introspection is never possible except for an individual conscious subject who has reached a comparatively high stage of intellectual development, it is obvious that the mental states upon which it can be directed will be mental states of an extremely complex and complicated character. Introspection alone will never, therefore, be a means of revealing to us psychical facts which we shall be justified in regarding as simple, although they may quite well assume for us the aspect of simplicity. To get at the composition of any such psychical fact, there is nothing

for it but to attempt a regressive analysis by the aid of such interpreting notions as we may be in possession of.

2. The kind of difficulties I have just been indicating are not, however, those which are usually emphasized. And, on the other hand, I think it can be shown that some of the traditional objections to introspection, plausible though they may appear on the surface, are not really of the formidable character they are often supposed to be.

The contention, for example, has been repeatedly advanced that since in introspection the act of attention can extend only to the inner experiences of the introspecting individual, the method suffers from a radical defect, which precludes its being of a scientific character. There can be no "science," so it is argued, of the individual. But probably here one vital consideration is lost sight of. If the argument were pressed, it would prove equally fatal to external observation, and consequently to science of any kind. For, after all, it has to be remembered that, even in the case of external observation intercommunication of knowledge—of perceptions, thoughts, beliefs, and so on—is, by no means, an immediate or a direct process. Like all intercommunication, it has to take place through means of signs or language. Each observer of the outer world is so far a specific, isolated individual. He assumes, no doubt, that his own observation and those of others are observations of the same external nature. On any such view as that of the sensum theory of sensible appearances, it is a very great assumption. Yet, even granting its legitimacy, the fact remains that the individual obtains a knowledge of what others have observed only through signs which have to be recognized by him. His knowledge is, that is to say, in this respect mediate knowledge, and no process of comparing his observations with outer fact can ever succeed in eliminating *that* element of mediacy. It will not do, therefore, to push an objection of this sort to extremes. With regard to

the mental life of human beings we do undoubtedly possess the means of arriving at a common basis of knowledge, though the means of arriving at it be neither so ample nor so easily applicable as in the case of external observation.

Once more, a considerable amount of exaggerated difficulty has been manufactured out of the circumstance that in introspection, as it is customarily said, the observer and the observed are one. Introspection is impracticable, so it is urged, because it presupposes that while we are experiencing one mode of mental life we are, in another mode, simultaneously cognizing the former, that while we are attending (say) to a strange and curious flower we are at the same time attending to this act of attending. And the mind cannot be in two modes or states at once. Leaving, however, meanwhile on one side the ambiguity lurking in the phrase "one state of mind," one might be inclined to defend the exact opposite of the premiss on which this reasoning is based as setting forth a fundamental feature, almost, indeed, a necessary condition, of conscious experience. What is given for our apprehension at any one moment, what constitutes, therefore, the contents of our experience at that moment, exhibits always the characteristic of multiplicity, plurality, difference. The mere fact, then, that we are *ex hypothesi* at one and the same time both apprehending a content and attending to the act of apprehending does not in itself present any insuperable impediment. No one would maintain that we may not be at one and the same time visually perceiving a violin and listening to the sounds which it is emitting. The general ground of this objection must, accordingly, I think, be relinquished.*; and, if it is to be retained at all, it must depend

* "If one *Erlebnis* can be directed upon another *Erlebnis* of the same ego, it is," says Meinong, "certainly a very remarkable fact. And whether we are in a position to conceive how it happens may be questionable." But, he adds, it is also questionable whether there is anything more essentially puzzling in it than in the capacity of our intellect to

for such strength as it possesses upon the case it can make out in reference to the empirical obstacles that stand in the way of carrying out an act of cognition under the conditions specified. The question may certainly legitimately enough be raised whether there is not something antagonistic in the two states of mind we are contemplating, whether the attitude of directly experiencing a mental process is not quite unlike, even antithetic to, the attitude of noticing the features of that experiencing; and, if so, whether their simultaneous occurrence is not incompatible with what has been empirically ascertained respecting the conditions of attention. As thus stated, the criticism cannot be lightly disposed of. It is probably true that, in the vast majority of cases, a reflective consideration of a state of mind, a psychological scrutiny of it, is only possible when the original experience itself is past, and that, consequently, introspection is usually, at least, retrospection. One would have, therefore, to allow ample room for incompleteness, inaccuracies, errors, such as would be occasioned by the conditions under which the memory, or revival in idea, comes about. For there certainly are experiences which never can be revived with the vividness and detail of their first occurrence. This, however, is a purely practical difficulty, and is in no sense a theoretical objection to the process of introspection as such.

3. On account of the fact, as he took it to be, that attentive consideration of mental states is possible only when these are given in memory, Brentano insisted upon drawing a very sharp distinction between what he called "inner perception" (*innere Wahrnehmung*) and "inner observation" (*innere Beobachtung*). The former could, he maintained, never become the latter. Objects of external perception could be observed and attention be concentrated upon them, but with respect to what we apprehend "transcend" the reality of its own thinking in any act of apprehension whatsoever (*Die Erfahrungsgrundlagen unseres Wissens*, p. 50.)

hend through "inner perception" this was altogether impossible. In respect to certain psychical facts—such, for example, as the state of anger, which disappears so soon as the angry person attempts to observe it, this impossibility is apparent; but, in truth, Brentano argued, the impossibility evinces itself in all other cases, so that it can be laid down as a general psychological law that we can never direct attention upon the object of "inner perception."*

But let us look first at this alleged process of "inner perception." Dr. Broad valiantly undertakes to defend the comparison instituted by Locke and Kant between "external" and "internal" perception, which he thinks has been unfairly handled, and is of opinion that the analogy is, in truth, stronger than they imagined.† It may, then, be worth while alluding for a moment to the tangled skein of perplexities that emerges from Kant's treatment of the question.

In order to render the correspondence with "outer sense" complete, Kant had to assume that there is (a) a certain material, or manifold, given to the "inner sense"; (b) reception and arrangement of that material in the form of time; and (c) determinations of the material by the categories. The given material was taken to consist of impressions produced by the mind affecting itself—a mysterious operation from which, however, it was concluded that we do not know the mind in its own nature, but only the appearances which it thus engenders. Moreover, the description of time as a form peculiar to "inner sense" lands us at once in an awkward predicament. For, since *all* phenomena are in time, it has to be maintained that the presentations of outer sense are by their very nature presentations also of "inner sense," and even that they may be said to "constitute the actual material with which we occupy our minds." But, apart from

* *Psychologie vom empirischen Standpunkte*, p. 35 sqq.

† *Op. cit.*, p. 420-421.

the notorious fact that not all presentations of outer sense are characterized by spatial extendedness, we are left without the slightest means of explaining how it is that certain objects of "inner sense" become differentiated from others, and to be regarded by us as specially making up the structure of the mental life. And finally, it turns out that the material of "inner sense" is not, after all, determinable by the categories of substance, cause and reciprocity, because the permanent content which such determination presupposes can only be furnished by the data of outer sense, so that it would seem to follow that inner states ought not to be cognizable as changes or events. The embarrassments of the situation do not, however, end here. In working out the doctrine, Kant was led so to widen the gulf between the empirical and the pure ego as to be forced, against his will, to give to the latter a kind of substantive existence, and to picture it as *the* subject to whom the inner objects are presented and as performing the function of synthesizing them into a coherent whole.

Turn, now, to Dr. Broad's re-statement of the position. In "external perception" we have, he urges, to distinguish between (a) sensing, (b) selecting, and (c) using a sensed and selected sensum for perceiving; and in "internal perception" we have correspondingly to distinguish between (a) indiscriminating simultaneous awareness of mental events, (b) introspective discrimination of certain particular mental events, and (c) introspective perception of a conscious mental process by means of certain mental events which have been introspectively discriminated. Troubles similar to those which beset the path of Kant manifest themselves here so soon as we look with any care at the second of these steps. The *sensa* are *ex hypothesi* from the first separate and distinct from the process of sensing; it is intelligible, therefore, to speak of certain of *them* being selected and used for perceiving. The mental events, on the other

hand, are not distinct and separate from the "undiscriminating simultaneous awareness," and are not intuitively apprehended as objects. Before certain of them can be discriminated from others, they have somehow got to be objectified. Accordingly, there must supervene here a fundamental operation, that upon which the whole issue turns, which has nothing corresponding to it on the side of external perception. Nor is this all. "My introspective perception of an ordinary conscious mental process, such as a conation, is," Dr. Broad goes on to say, "based on certain interconnected experiences of which I do have simultaneous indiscriminating awareness and some of which I may introspectively discriminate. I should not say that I 'introspectively perceived' this conation of mine unless I were introspectively aware of these interconnected bits of experience." But what is meant by the "I"? One would naturally take it to mean a conscious subject to which the interconnected bits of experience are presented as objects and by which the act of discriminating them is exercised. And, in fact, on any such view as that under discussion, I do not see how the assumption of a "pure ego," as a substantive entity in possession of a whole armoury of notions, is to be avoided.

Are, then, the facts of the mental life brought before us by any process that can be appropriately described as "internal perception"? I am not going to rest a negative answer merely on the consideration that nowhere in experience is there any evidence of such a process as that of "internal sensation," or "inner vision." There is no evidence of it: but I suppose that, if mental states are conceived to be so many independent entities, distinct and separate from the ego or soul, there would be nothing to prevent the assumption that what might, in that case, be called "the reactive energy" of the latter is not confined to stimulations which are mediated through the sense organs, but that it may in addition be affected by those mental states themselves and

by the ways in which they are grouped together. The ground of my negative answer rather is that, although we may express in words a view of the mental life as consisting of a series of events presented to a special faculty of perception, we cannot reconcile such an interpretation with what we are at the same time taking to be the real character of mental facts themselves. If we are serious in regarding mental states as mental, as being facts *of* mind, then their very nature precludes the possibility of their being presented to the mind as *objects*. Just that which is specifically characteristic of them—that they are ways in which the mind knows or is aware of objects—must needs evade presentation in objective fashion.

This contention is not to be set aside by the easy device of pointing to the ambiguity of the term "object." No doubt the term is ambiguous. It may, of course, be employed in the wide sense of that which a conscious subject in any way cognizes or reflects upon. But when it is used with reference to ordinary perception it certainly has no such wide significance. Invariably in that context, it means a particular concrete existent, possessing certain characteristics, and definitely marked off from other particular concrete existents. And whoever proceeds with the help of the notion of "internal perception" to depict mental facts almost inevitably pictures them as objects in this narrower sense. He represents them after the model of things or events in the physical world, and they assume for him a quite illusory isolation and independence, so that the *peculiar* interconnectedness through which alone they compose an inner life escapes recognition.

4. If, then, we discard the notion of a special kind of perception called "internal," if we recognize that mental facts do not present to the conscious subject the same formal aspect, aspect as perceived fact, which external facts present to him when percipient, are we driven to the conclusion that, so far

as mental facts are concerned, we have no means of transcending the immediate experience which in living through them we possess? I do not think we are, by any means. That we do live through (*erleben*), or "enjoy," our own mental states is, I take it, indubitable, and equally indubitable is it that such immediate experience is the basis of any knowledge of them which we may acquire. But in itself it is not knowing. Through immediate experience as such we neither discriminate nor distinguish nor recognize distinctions. Yet the fact is staring us in the face that not through any specially attentive reflexion on the inner life but through ordinary everyday apprehension the mature mind *does* discriminate its mental states and *does* discern varieties among them. For example, the familiar distinctions that have become stereotyped in the antiquated doctrine of faculties were not the discoveries of psychologists; psychologically considered they are rough-and-ready distinctions, but all the same they imply no inconsiderable amount of discrimination as to the ways in which mental activity is exercised.

This knowledge of our inner lives, knowledge which we all more or less possess, I will designate "self-knowledge."* And what I now wish to urge is that, in order to account for its attainment, there is no need to postulate any unique or special faculty, that it is acquired in and through the very same processes of apprehension by means of which we obtain knowledge of external things.

Consider what we call sense-perception. Frequently we are inclined to treat it as though it were simply and solely the cognitive act of discriminating and discerning the features or characteristics of an object. But the slightest reflexion is sufficient to convince us that, as it takes place in the concrete life of mind, it

* What Dr. Broad denotes by "simultaneous indiscriminating awareness" is, I take it, the same as what I am calling "self-knowledge." But I prefer not to speak of "undiscriminating awareness," because I think the awareness in question obviously involves discrimination.

is an act of far greater complexity, that it involves not merely recognition of the qualities of an object, but a change in the state of feeling-tone, and, as resulting from both, a certain mode of conation. We may submit these to isolated treatment, and certainly the relative proportions in which they occur exhibit the most striking varieties, but, in the present reference, the important thing is the fact of their unity. The act of perception is essentially an act of discriminating; but the point of my contention is that it is an act not merely of discriminating the features of the object, but likewise of discriminating the object from that which, if one may use ambiguous language, is given along with it, and is, in fact, subjective. I do not mean, of course, that it is an act both of external and internal perception; I do not mean that two objects are before it, an outer and an inner, and that it discriminates the one from the other. I mean that the one object is only determined by it *as an object* in contrast with an awareness which it does not so determine. It needs not, I should say, two mental acts to perceive a toothache and to be aware that I dislike it; to perceive a white figure in a churchyard and to be conscious that I am afraid of it; to perceive a tree and to know that I am perceiving it. What Meinong calls the *Auswärtswendung* and the *Einkwärtswendung* of the content of an act of perception* are here, in fact, two different aspects of the combined content of a single act of apprehension.

Were we to try to trace psychologically the way in which the distinction between what it is customary to describe as "inner and outer experience" comes, with increasing definiteness, to be recognized, abundant confirmation would, I think, be furnished of the view I have been indicating. It could be shown, namely, that in such an undertaking we are concerned throughout with a correlative course of development, that advancing common-

* *Op. cit.*, p. 58.

sense knowledge of the external world of nature on the one hand and of the inner life on the other proceed strictly *pari passu*—that they are, in fact, complementary sides of one and the same process.

5. Now, however, I want to take a further step. I should be inclined to differentiate more sharply than has usually been differentiated between what I have called "self-knowledge" and introspection. While the latter, obviously, presupposes the former, it involves, it seems to me, considerably more. I recognize the difficulty of drawing any hard-and-fast line of demarcation, but when we take a case of introspection sufficiently far from the border between the two the difference is clearly enough marked. For instance, I should hesitate in describing Professor Stout's example of the chess player as an example of introspection. So long as this individual is telling us about the problem and its solution his attitude, it is said, is not introspective. But if he goes on to describe how he came to invent the problem, or how he came to discover its solution, he will then be describing the workings of his own mind.* Yes; in a way, he will: but only in that quite popular, general way in which he would probably have had the workings of his own mind present to himself when he was telling us simply about the problem and its solution. Self-knowledge of that kind, varying, no doubt, considerably in degree of prominence, is actually present, if I mistake not, in most of our perceptive situations. Suppose, on the other hand, I try deliberately to ascertain what I have been doing in perceiving some definite object say, some strange and curious flower—or, in willing some definite course of conduct—say, an early rising next morning—the process, although not different in kind, is yet so different in degree from the former process as to justify its being called by a different name.

* *Manual*, 3rd ed., p. 40.

The difference is largely akin to the difference between ordinary apprehension of an object and close deliberate inspection of certain of its properties. Both in the latter case and in what I take to be introspection in the strict sense, we are abstracting from a number of factors and concentrating attention upon a limited area. But in introspection what we are trying to concentrate attention upon are subjective factors: and the difficulty, of course, is so to isolate these, for the purposes of our attentive consideration, as to feel fairly confident that we are dealing with what is mental. Is it possible to concentrate attention upon *the act of perceiving* the flower rather than upon the flower, or upon the *process of willing* rather than upon what is willed? If it is, then, plainly, it will be by an act other than the perceiving or the willing that is being introspected, and this, in itself, will serve to differentiate introspection from what I have been calling ordinary "self-knowledge." And, in respect to it, our former question will recur: Is, then, the act of perceiving or the process of willing an *object* of such an introspecting act? I will fall back here upon certain distinctions made by Dr. Broad. He would distinguish, namely, between being "objective" and being "objectifiable": and again, between being "epistemologically objectifiable" and being "psychologically objectifiable."* The terminology is not particularly happy, but that, meanwhile, need not worry us. "*Everything*," writes Dr. Broad, "is in principle epistemologically objectifiable, for everything can at least be thought about, and is thus capable of corresponding to the epistemological object of some thought-situation." On the other hand, "to be 'psychologically objectifiable' means to be capable of being an objective constituent of some objective mental situation."

Now, I make no doubt that what, in numerous cases, we are attempting to do in so-called introspective observation is, in

* *Op. cit.*, p.[306,⁷*seqq.*

Dr. Broad's phraseology, to "psychologically objectify" the mental state with which we may be concerned. We are attempting, that is to say, to regard it as a concrete object which stands over against us for observation and scrutiny, after the manner in which, in perception, a physical object stands over against us for observation and scrutiny. Obviously, the *only* kind of perception that can provide an analogy to such a procedure is visual perception; and, accordingly, the act of introspection is pictured as a sort of inner vision. The method of introspection, as thus conceived, is, if what I have been urging be justified, naturally exposed to two serious objections. Either the fact of "being conscious" will appear to be "diaphanous" in character, something, that is to say, which eludes visual apprehension, even of the unique kind called "inner"; or else it will appear that what we are really observing are certain accessory facts that concern, or are constituents of, the body, and not mental factors at all. I do not say that, even so, the objections are altogether fatal. It does not follow, for example, that because what we are attending to are for the most part kinæsthetic and cœnesthetic sensations, we are not, at the same time, discriminating certain characteristics of mental states occurring in conjunction with them. Yet, so conducted it does seem to me that the method is peculiarly ineffective, and that, under such a supposition, the would-be observer is well-nigh certain to confuse and misinterpret what he imagines himself to be observing.

But there is, so far as I can discover, no imperative reason why, if there is to be introspection, it must be of the character just described. If in ordinary self-knowledge we do not *thus* objectify the subjective, surely it is not impossible for the trained psychologist to avoid doing so. What is there to prevent him reflecting upon his own mental states from the point of view of one who is actually experiencing them, or to force him to attempt the

impossible task of surveying them from the point of view of an onlooker? He is or has been actually living through the modes of awareness he is concerned to investigate. It is true that merely as lived through, they do not yield knowledge of themselves, that what is known through them is not their own manner of existence as modes of knowing. In *that* respect, however, they do not differ from anything else that he knows; the mere givenness of anything is not sufficient to constitute knowledge of it. Admittedly, he is bringing to bear upon them another cognitive act, which, as it actually occurs, is also lived through or immediately experienced. While not, then, identical with what it is introspecting (any more than any cognitive act is identical with what it is cognizing), the introspective act will be of one piece and continuous with it, a part, so to speak, of the whole process it is endeavouring to interpret. There is no more reason that I can see why that which is to be introspected must, in order to be introspected, be thrown, as it were, upon a screen, than there is why, in order to recall a conversation I had with a friend the other evening, I must necessarily visualize his face and features, or hear again the tones of his voice. Not only does it seem to me possible, therefore, so to introspect mental states from within, but I think that all the more exact and trustworthy psychological introspection actually is of this nature. Whether it is rightly to be described as "intuitive," in Dr. Broad's sense,* I am not prepared to say. He seems to lay it down, as a condition of an act of introspection being so designated, that the mental states apprehended "must be or seem to be objective constituents," just as "physical events or things are or seem to be objective constituents of perceptual situations," and that is precisely the condition which in the kind of introspection I am contemplating cannot be fulfilled. Yet, inasmuch as the mental states in

question are or have been immediately experienced, I should have thought that this introspection of them might claim to be "intuitive," in any sense that any cognitive act can claim to be. That the introspecting act is an act of thought or of reflexion I hold, indeed, to be certain; but in that respect, again, it does not seem to me to differ from any other act of knowing.

6. It will, perhaps, serve to make my meaning clearer if I ask, in conclusion, what information we can get from introspection, as I have been viewing it, in regard to the unity and continuity of the self.

I agree with Dr. Broad that if there be a "pure ego" it is certainly not revealed to us in any introspective situation. And, theoretically considered, the assumption of a single entity essentially related to a manifold of mental states, and yet in essence really distinct from them, leads to intolerable perplexities. But if the notion of a "pure ego" calls to be rejected, the notion of an "empirical self" must. I should say, go along with it, for they are, in truth, correlative notions. Dr. Broad, on the contrary, thinks that no one seriously doubts the existence of "empirical selves," and that in every introspective situation we are concerned with what is, in fact, an event in that whole complex which constitutes the "empirical self." The "empirical self" is, he argues, in so far precisely analogous to a physical thing as that "each is a long strand of history whose successive slices have a certain continuity with each other, and are themselves composed of various temporally overlapping events in a characteristic way." *

Now, I think this way of describing the continuity of an individual mind—as a series, namely, of separate events in time externally related to and overlapping each other—comes from trying to survey mental facts from the outside, and is not the

* *Op. cit.*, p. 283.

story introspection has to tell when it is conducted from the point or view of the individual subject.

If an individual subject tries to determine by such introspection what it is that constitutes the continuity which he ascribes to his own inner life, surely the first thing discerned by him will be that the capacity of retaining and reviving the contents of previous states of consciousness lies at its very basis. He will notice, namely, as a fundamental feature of what is experienced at any one moment, or "span of duration," the presence of "ideas," the contents of which involve a reference to the past and likewise to the future. And reflexion will soon convince him that just in proportion to the extent in which there is provided a supply of such "ideas," and just in proportion to the distinctness of the reference which they bear beyond themselves, will be the kind and amount of continuity of which there is awareness. He will notice, further, that the change characteristic of the inner life is change of a special type. The change there, he will find, is never mere succession, mere vicissitude. What happens is always the occurrence of a modification in the total content of the momentary situation, a partial alteration in what is experienced. He will notice, once more, that while the reference of "ideas" beyond themselves is specifically to the past and to the future, and the continuity resulting therefrom is definitely of the kind called temporal, this is not the only form of continuity of which he is conscious. He will differentiate, in addition, that derivative form which plays so prominent a part in his mental development, the continuity of his purposes and his interests.

I must not pursue the analysis further. I will, however, lay stress on one point—namely, that the continuity which thus evinces itself is perfectly compatible with the discontinuity which the mental life will seem to exhibit from the standpoint of an external spectator. The external spectator makes the demand

that if continuity is to be ascribed to an individual mind the flow of mental process must proceed unbroken, that in it there must be no gaps or pauses. And then he is baffled by the periodical occurrence of dreamless sleep or the special occurrence of what is popularly called unconsciousness. But, in truth, it may quite well be the case that, since the mental life is dependent on bodily conditions, of the relation of which to it we know little or nothing, there may constantly be in its current, as viewed from without, gaps or pauses, and yet nothing in that circumstance in the least to conflict with the kind of continuity revealed by introspection to be uniquely characteristic of it. So far as the latter is concerned, the essential thing is that the gaps or pauses do not destroy the intimate connectedness that subsists for the conscious individual himself between the contents of what he experiences. The last distinct thought before he goes to sleep at night and the first idea that occurs on his awaking in the morning fit together in a coherent context: it is not necessary that he should be "thinking always" in order to preserve his mental life from being split up into disjointed fragments.

The unity of mind, as it is disclosed to reflective introspection, cannot, then, be construed as a unity that results from a complex of mental events interrelated in any way analogous to the mode in which physical events are interrelated. The very simplest form of the unity in question, that which is exhibited in the unity of the multiplicity of contents that constitute at any one moment what is sometimes called the "field of consciousness," is unity of a type totally different from that which we encounter in the physical world. On the other hand, it is equally incapable of being construed as the unity of some existent agent, set over against either what are called "presentations" or mental events. When we say "*I* am thinking of this book, and wanting my tea, and feeling tired," this certainly does not suggest that the term "*I*" is "the proper name of a certain existent which

stands in a common asymmetric relation to all those contemporary mental events." * On the contrary, what it does suggest is that the "I" is not something different from the act of thinking of this book, and of wanting my tea, and of feeling tired. It suggests that the "I" *is*, for the time being, these mental states, rather than the "owner" of them; that they are the transient modes or phases of an indivisible individuality.

* *Ibid.*, p. 584.

II. *By G. F. STOUT.*

MR. DAWES HICKS has fairly covered the ground. I shall therefore mainly confine myself to the questions which he has raised, noting the points at which I fail entirely to follow him, or find his treatment inadequate.

There are two important topics which Mr. Hicks has, in my judgment, handled so well that I have only to endorse what he says without further discussion. The first is the unity and continuity of the self as explained at the close of his paper. I agree in rejecting the "pure ego," whether conceived as a substance or as an activity. I agree also that in giving up the "pure ego" we must also give up that conception of the empirical self which presupposes a pure ego and has meaning only as correlated and contrasted with it. I would only add that Mr. Broad's statement that there is no doubt of the existence of the empirical self is in itself open to a more favourable interpretation than Mr. Hicks puts upon it. It may merely mean what Mr. Hicks himself means - that the unity of the experiencing individual is to be sought within his experiences and is not a "something, we know not what," lying behind them or floating above them. Even the suggested analogy of a physical thing may be intended in a quite innocent way. The point of it may be that the physical thing also is the concrete unity of its properties, processes and modes of behaviour, not merely an abstract entity lying behind these and supposed somehow to bind them together. This may be maintained without in the least denying that the distinctive form of unity of the experiencing and thinking individual is of a quite peculiar nature having no parallel in anything else. Mr. Hicks's inveterate habit of thinking historically, and

especially in terms of the Kantian philosophy, perhaps leads him, now and then, to be unconsciously unfair to those who are not steeped in history and in Kant. How far Mr. Broad himself would accept this apology I shall not venture to determine. But I offer it on my own behalf; for, like Mr. Broad, I also have been in the habit of saying that I know only of one self, the empirical self.

The second point on which Mr. Hicks leaves me little or nothing to say is the theoretical objection that in introspection "the observer and the observed are one." In principle this supposed difficulty, if it were insuperable, would render impossible not only introspection in the narrower sense, but what Mr. Hicks calls self-knowledge in general. The difficulty arises only for a preconceived theory of knowledge, and any theory of knowledge which finds it insuperable is thereby itself discredited. It has mistaken its own business, which is to give a coherent account of the knowledge which we undeniably possess, not to deny its existence. But who is prepared to maintain that he cannot notice that he is, *e.g.*, pleased or perplexed, or angry or hungry. It is, of course, as Mr. Hicks points out, another question how far the division of attention between a subjective process and its object may bar sustained and continuous attention to the process itself. But this is a topic which will most conveniently be considered after dealing with the question whether introspection and self-knowledge in general can be properly regarded as "inner perception."

Here there are two problems, one raised by the word "inner" and the other by the word "perception." Let us begin with the first. The very word introspection literally means looking within; and every one who deals with the subject is naturally impelled to conceive of it as concerned with something inside us as contrasted with objects which, as being outside us, are called external. Mr. Hicks himself, for example, speaks, at the outset

of his paper, of a "self-conscious mind" attending to the successive phases of its own *inner* life; and he uses similar language elsewhere. Now the question I raise is: Why is he not content to speak of the "mind's own life"; what leads him to add the adjective "inner"? Has the mind an outer as well as an inner life? In general, what account are we to give of this distinction of inner and outer as applied to the self-conscious mind and its objects as such? That it can be only metaphorical seems clear. The relation of attention and will to what we attend to and will is not spatial. When I think of space my thought is not spatially external to the space I think of. But if there is a metaphor, what is the point of it, and what makes it so natural and inevitable? In ordinary life we use such phrases as "out of sight, out of mind" where "out of mind" means beyond the range of perception and thought. But this metaphorical use of "in" and "out" does not help us, for it applies only to objects and not to the subjective processes with which introspection is concerned. My own view is that when we speak of our "inner life" as contrasted with external objects, we do not intend a metaphor at all. We mean literally by "inner" "inside our own bodies," and by "external" "external to our own bodies." But if our minds are not things locally situated within our bodies, is it not sheer confusion to speak of the inner life of a self-conscious mind? Ought we not to drop such language altogether as merely perpetuating a vulgar error?

This, I submit, would be the conclusion to which we are inevitably led, if it were true that the self of which we are primarily aware in self-consciousness, in common sense self knowledge, and in psychological introspection were merely a mind, if it were what Descartes calls a purely thinking self from which everything which pertains to the body is excluded. But this is emphatically untrue. Apart from a difficult and dubious process of abstract analysis, what I am aware of as myself, what I ordinarily mean

by the word "I," includes in inseparable unity a bodily and a mental factor. It is experienced and known as an *embodied self*. Each of us primarily apprehends the bodily aspect of his own embodied self in a way no one else could possibly apprehend it. He is aware of it not as something seen or handled, but as implicated in the process of seeing or handling. In bodily effort against resistance, the bodily effort is ascribed to the self; it is I who push or pull; only the resistance is ascribed to the "external" object. In seeing and touching and effort against resistance what we are aware of is not merely what is seen or touched or resisted; it includes these in one total situation along with the embodied self as engaged in seeing, touching, or making an effort. Within this total situation the self in its bodily aspect is apprehended in spatial relation to surrounding things. It occupies a central position and they are outside it. In this sense and only in this sense they can properly be called external objects or objects of external perception: on the other hand, the body, so far as it is known otherwise than by touching or seeing or in any way externally perceiving it, is properly regarded as an internal object or an object of internal perception. I have taken instances only from the perceptual level. But the thesis that the self of self consciousness is an embodied self seems to me to hold good even for the highest processes. Even what Descartes calls pure thought is a hard bodily effort; and if we try to think away its bodily side, what we reach is not an actual process but a mere abstraction incapable of concrete existence.

It thus appears that the phrase "inner perception" can be definitely explained and even justified if we apply it only to the apprehension of the bodily factor of the embodied self. This of itself is a good reason why we should not use the phrase as a synonym for introspection or for more rudimentary stages of self knowledge. For the self as primarily known to us is not merely body, but mind and body in one; the terms "external" and

"internal" have no literal application to the mind as such, and to use them metaphorically is confusing and misleading. If, however, we drop the term "inner" it does not follow that we are bound to give up the term "perception." We might, for instance, following the use of the word Reflection in Locke and Hume, speak not of inner but of reflective perception. Before committing ourselves to this or equivalent language, we must first consider what it is taken to imply. Now those who, like Mr. Broad, make a point of defending it, seem to imply by it a doctrine which I find untenable. They presuppose some distinction analogous to that which Hume draws between impressions of reflection and impressions of sensation. I admit that a distinction of this sort may be justified when we consider only the bodily aspect of the self and its processes; but it seems to me to break down entirely when we take into account the mental aspect. The implication which I find indefensible is that the supposed introspective or reflective "perception" is distinguished from sense perception in a way which is in principle the same as that in which different sense perceptions or different kinds of sense perception, *e.g.*, seeing, hearing, or touching, are distinguished from each other: Reflective or "inner" perception in general is contrasted with sense-perception in general only because its objects have a common character which is not shared by any object of sense, that of being predicable of the self. I can say "I am angry" or "I love" but not "I am red" or "I am loud." Now I admit that the distinction here laid down is fundamentally sound. What I have to urge is that when we examine what it involves, it destroys the supposed analogy. The question is well treated by Mr. Hicks. What follows is intended to supplement and reinforce his argument.

The meaning of the word "I" and the experiences which we predicate of it, such as seeing and hearing, desiring and willing, cannot be apprehended except in correlation with a not-self

which is also experienced or thought of. It is utterly wrong to suppose that we can, so to speak, turn our backs on other things and direct our gaze on our own states and activities so as to contemplate these by themselves apart from their objects. If we try the experiment, we find that there is nothing left to contemplate. This applies to the process of sense perception as well as to all other processes which are ascribed to the self as subject. I am looking, let us say, at a tree; I am so preoccupied with the tree as to take no notice of my self or of the process of seeing. Suppose now that my attention is turned in another direction by my interest in psychology. My attention is diverted, but it is not diverted as it would be if I looked at another tree or a house, or began to listen to the song of a bird, or put my hand in my pocket to find out how much money was in it. In listening to the song of the bird, I may cease either to perceive or think of the tree. The song of the bird then simply displaces the tree as an object of my attention and is substituted for it. It is essentially otherwise when my attention is diverted from the tree itself as a physical object to the seeing of it, as my action. I cannot attend to the seeing without also continuing to perceive or think of the tree as seen. So far my attention is not really diverted from the tree to something else. The real difference is that I am regarding the tree from a different standpoint: I am raising a different kind of question concerning it. I am no longer, for instance, seeking to know how its leaves are arranged or how old it is, or whether it belongs to this or that species.

The sort of question which occupies me is of another order. I ask, for example, how much of what I am aware of in seeing is due to previous experience and what is independent of previous experience? How is it that the tree looks different as compared with the tree I first saw independently of real change in it? How is it that I now detect at a glance details which I did not originally detect at all? How is it that it does not seem to me

so big as when I was a child ? Such questions refer to the way we see the tree ; but for that very reason they are questions concerning the tree, concerning the way in which the tree appears to us when we see it. In general, the objects of subjective processes enter essentially into all introspective judgments. Further, we may always make them the grammatical subject of such judgment. We may say indifferently, " I attend to this," and " this occupies my attention " ; " I am pleased with this," and " This pleases me " ; " I am reminded by this of that." and " This reminds me of that."

Now I come to the point of my argument against those who, like Mr. Broad, would justify the use of such phrases as inner perception on the ground that there is no fundamental difference between the way in which introspection is distinguished from sense-perception and that in which different kinds of sense-perception are distinguished from each other. My point is that one sense-perception is distinguished from another by different *sensa* which are independently and separately experienced so as to make possible correspondingly independent and separate directions of attention. But the subjective process, including such processes as those of seeing and hearing, is not thus separate from and independent of its object.

It may, however, still be urged that my case is incomplete. Admitting that I have pointed out a fundamental diversity of nature between the introspective process and sense-perception, I have failed, it may be said, to take account of a fundamental agreement, which may of itself suffice to justify us in using the term perception, in a similar sense, for both. When we are wholly absorbed in attention to an object, our attention is itself experienced in the sense of being " lived through," or, to borrow a word from Alexander, " enjoyed." But we certainly need not notice it. We take note of it only when we pass from the objective to the reflective or self-conscious attitude.

Now this may be taken to imply that it is only in the supervening reflection that we become cognizant of it at all. On this assumption, in turning from the merely objective to the self-conscious attitude, we become cognitively aware of something actually and positively experienced which was previously quite unknown to us. Further, we are aware of it in that direct way for which the proper name is perception, a perception analogous to sense perception and differing from it only in being concerned with subjective not sense experience. I would reply to this argument that it rests on the false assumption that what we do not notice is in no way known to us. However absorbed we may be in an object, it seems to me that we are never wholly incognizant of our subjective life in relation to it. What we are cognizant of is the whole situation into which object and subjective process enter as joint constituents. When and so far as our attitude is objective, it is only objective features which are discriminated, but it does not follow that the subjective side is in no way known. We ought rather to say that we are aware of it in being aware of the whole of which it is part, without separately discerning it within this whole. I maintain this, in the first place, on the evidence of my own introspection: however engrossed I may be in what I see, yet when I begin to reflect on the fact that I am seeing it, I seem clearly to recognize that I am not becoming cognizant for the first time of something new to me with a novelty comparable to that of a new sensum, a new colour or sound. On the contrary, I seem to be apprehending distinctly what I had previously apprehended confusedly inasmuch as I did not pick it out from the whole of which it was part. In the second place I find strong support for this view in the otherwise unaccountable fact, which seems to be generally admitted, that we can notice for the first time in memory features of a subjective process which escaped us while it was actually going on. I do not see how there can be

memory knowledge where there is no previous knowledge. But there is no difficulty in the view that we may in memory know discriminately what was originally known indiscriminately.

In maintaining this position it follows that I am also bound to maintain that an experiencing individual is always, at least implicitly, self-conscious. I accept the consequence. I agree with Ferrier that we are never cognizant merely of an object, but always of an "object *necum*." And this holds for a mouse as well as for a man. That both the "me and the object" are vastly more simple and rudimentary in the case of the mouse than in that of the man makes no difference. Of course, the self I refer to is the embodied self. The distinction of the mind as such from all that is bodily is a reach of abstraction attained only at a late and complex stage. And then, like Descartes, we are apt to carry it too far.

I come now to the practical difficulty of attending at once to the object for its own objective interest, and also of attending to it in an introspective interest as an object of subjective process. To begin with, it is important not to confuse this difficulty with another which arises merely out of want of practice and the weakness of the introspective interest. The plain man whose attitude is mainly objective feels himself bewildered and helpless when he is called on to pay deliberate and systematic attention to the workings of his own mind. He does not know what to look for. On the other hand, the trained psychologist is equipped with a definite set of questions which he wants answered. He has not to introspect at large but can go at once to the point in which he is interested. The difficulty with which we are now concerned exists both for those to whom the introspective attitude is familiar and for those to whom it is unfamiliar. It consists in the divergence of two interests; interest in the object as part of the world of objects, and interest in the object merely as the object of a subjective process. That such divergence exists is undeniable; but it is

easy to misunderstand its nature and to exaggerate its degree. The divergence is not at all comparable to that of two disconnected objects, for interest in the subjective process is itself an interest which can be satisfied only in attending to its object. And this motive may be, of itself, sufficient to maintain attention to the object as a means to an end. For example, I may fix my gaze on one thing and try to concentrate on another in the margin of the field of view, in order to determine how far this is possible. Both the object fixated and that in the margin may, in themselves, be indifferent to me. It is the introspective interest which initiates and maintains the whole process, and there is little or no distraction due to competition. What Mr. Titchener calls "introspection under test conditions," as carried on experimentally in psychological laboratories, is predominantly of this type. Setting aside such cases, let us consider only those in which there is a relatively strong interest in the object on its own account. Here, no doubt, there is always more or less division of attention, which precludes continuous introspection and makes possible only a series of intermittent side glances. But the difficulty varies greatly in degree according to the nature of the subjective process which we attempt to examine. It is most serious where introspection when continued beyond a certain point interferes with attention to the object, so that the very process which we are endeavouring to notice tends to vanish in the attempt to examine it. But this is by no means always so - at least in a serious degree. The attempt to introspect does not, for instance, interfere much and rapidly with the subjective experiences, mainly painful, which have what I may call an obsessive character, such that we cannot voluntarily get rid of them however much we may want to do so. I cannot cause the experience of having a toothache to disappear merely by raising questions regarding it and getting answers to them from the experience itself. The same is true of emotions like anger. I cannot readily dissipate my anger by scrutinising it so as to

discover whether it is, for instance, mere anger or blended with grief, or fear, or jealousy. The difficulty here is of an inverse kind. It is not that the attempt to introspect interferes with the subjective process; it is rather that the objective interest is so engrossing as more or less completely to preclude introspection. How far it does so will depend to a great extent on the relative strength and persistence of the introspective interest. There is in this respect a wide difference between the ordinary man and a man like Henry Sidgwick, to whom the introspective attitude was almost as familiar as eating or breathing.

A word in conclusion on the problem whether what is called introspection is not really retrospection. We certainly can and do, by the aid of memory, discern features of bygone experiences which we did not distinctly notice at the time simply because our attention was not directed to them. We thus become discriminatively aware, in memory, of what at the time we apprehended only indistinctly and confusedly. Such introspective knowledge is by no means confined to subjective process. It may be, and often is, properly objective. As Brentano puts it, an astronomer can notice in memory details of the appearance of a star which escaped him while he was actually observing. But retrospective discernment of this kind fills a far larger place and is of much greater importance in psychology than in any other branch of knowledge. It does not, however, follow that there is no discernment of the nature of the subjective process while it is actually going on, and that therefore what passes for introspection is always merely retrospection. I say "merely," for it may well be that it is always partly so. The intermittent side glances in which we take note of our own mental operations as these actually go on are not confined only to the immediate present; the gaps are filled in by retrospective discernment of preceding phases which we failed to notice when they occurred. There is a parallel to this in objective observation as in Dr. Ward's example of repeated attention to a

flower, or in the gradual discernment of the details of a picture revealed in a series of momentary flashes. But neither objective nor subjective observation is confined to such retrospective discernment. What I find is rather that retrospective knowledge of past phases of the process is continued into, and terminates in, awareness of the immediately present phase. This, it seems to me, constitutes a marked distinction between mere retrospection and introspection in the strict and narrow sense.

III. *By G. C. FIELD.*

I FEEL a double difficulty in approaching this question. There is partly, of course, the usual difficulty, common to all third parties in these discussions, of lack of time for an adequate consideration of the previous contributions. But there is also a special difficulty arising from the nature of these contributions. It is usual, I think, for the third contributor to a symposium to pronounce some sort of judgment on the controversy between the two previous writers. But here, unfortunately or fortunately, there appears to be no controversy between them. Nor, even for the sake of producing a lively discussion, do I find it possible to raise any controversy with either of them myself. For their main arguments, as I understand them, appear to me convincing. And certain of the supposed difficulties in the way of believing in the fact of introspection appear thus to be satisfactorily removed. I am not sure, indeed, whether all these supposed difficulties really deserve such a careful and thorough consideration. Some of them, at any rate, appear to belong to that class of philosophical difficulty, unfortunately a large one, which consists in throwing doubts upon the existence of a fact by a demonstration of the difficulty of finding adequate language to describe it.

My own difficulties in the matter of introspection lie in a different direction. It is not a question of seeing how such a process is possible. To problems of that order I am inclined to reply *solvitur ambulando*. It is when I come to ask what are the facts, the indubitably mental facts, that introspection gives us, that I find the difficulty arises, both in describing these facts and in disentangling them from other facts given along with

them, but clearly not given by introspection. And if I arrive at some sort of general answer to this question, I find two other closely allied questions arising out of it. How much of the knowledge that we have of our own minds and our own mental processes is, in fact, given us by introspection? And, more generally, does introspection give us the material which could possibly be worked up into an ordered system of scientific knowledge? I cannot pretend to have arrived at anything like certainty on these points, and I will attempt no more here than to indicate how these difficulties arise.

When a student, beginning psychology, is first asked to turn his attention within himself and to describe what is going on in his own mind, he generally—invariably, in my experience—begins, if left to himself, by describing what it is that he is thinking about, remembering, imagining, sometimes seeing or hearing. That is, he describes “what is going on in his mind” purely in terms of external physical objects. The first distinction that he most naturally makes is between the objects which he sees or hears or touches, which he regards as “there,” and the objects which he thinks about though not physically present, which he has no difficulty in regarding as “in his mind.” At this first stage there does not appear to be a distinction made between having an image, visual or otherwise, and thinking about or making a judgment about a thing. Of course, there are still thinkers who deny that there is any such distinction. But I do not think most of those who are beginning their researches into these matters find much difficulty in accepting the demonstration of the impossibility of this point of view. And when they arrive at this stage they are generally ready to admit that “thinking about” a table does not put the table into the mind in any literal sense, and that the same table may be thought about and seen or touched, and in both cases may equally be really “there.”

There remain the images, which most people find it very hard to regard as anything but indubitably mental. If they are such, the contemplation of them ought to be, at any rate, one form of introspection, and is, indeed, so regarded by some writers. Bertrand Russell, for instance, in his *Analysis of Mind*, treats the image as the typical object of introspection.* The difficulties of regarding images as in any strict sense mental are familiar and appear to me insuperable. But what is more important for the present discussion is the fact that, so far as I can see, the reason for regarding the awareness of images as introspection is that those who so regard it are already convinced, on other grounds, that the images are mental, and therefore conclude that the contemplation of them must be introspection. It is because of what they observe in the behaviour of images and their relation with other facts that people come to regard images as mental. It is not because the act or process of being aware of an image is experienced as anything essentially different from the act or process of observing external physical objects.

It is this act or process which appears to remain as the indubitably mental fact about which introspection gives us information. But what sort of information does introspection give us about it? It is noticeable that, not only the student who was called in evidence above, but all of us, when we start to describe our mental processes in any given case, when, for instance, we start to describe the steps by which we solved a particular problem, find ourselves giving the greater part of our description in terms of the external facts which we observed or thought of. It is the things that we thought of, not our thinking of them, which we are describing the greater part of the time. It may seem sometimes as if the only indubitably mental fact of which intro-

* Perhaps it would be a fairer account of his point of view to say that he assumes that they are generally so regarded.

spection could give us information, was the bare fact of awareness, which admitted of no further analysis or description. If that were so, anything further that remained to be said could only be said in terms of the objective facts of which we were aware; in other words, in terms of what is given by external observation, or however we are going to express the process which is contrasted with introspection; while all the information that introspection gave us or could give us could be expressed completely in a single sentence.

On the other hand, in the course of such an account, we should probably find ourselves using different expressions which, at first sight, might seem to suggest differences not in the objects but in the mental processes. We should find ourselves saying not only that we thought that so-and-so was the case, but also that we noticed that, we wondered whether, we remembered that, we assumed that, and so on.

I do not, however, think that it is certain that these different terms express differences in the mental process, such as we should be aware of by introspection. In fact, it seems to me clear that some of these expressions indicate not a special characteristic of the mental process, but something in the nature or in the situation of the object apprehended. Thus, I have already indicated the view that the difference between sense-perception and imagining is to be found in the behaviour and in the relation of the objects apprehended in these processes, and not in the characteristics of the mental process itself. It is not, therefore, a difference known to us by introspection. Or, to take a more disputable example, I am personally convinced that a careful inspection of the process of memory reveals it as simply a form of inference or judgment, differing from other forms of inference solely by what is inferred and what it is inferred about. I confess, however, that I am not yet convinced that all cognitive processes are really thus reducible to one single kind of act. Though I cannot develop

the point here, there appear to me to be at least two different kinds of cognitive act, distinguishable introspectively, which are not reducible further. But I doubt whether the difference between the two, any more than the difference between two colours, is further describable than by pointing out, so to speak, where they may be found.

It will be seen, therefore, that, even on this supposition, the knowledge of our cognitive mental processes revealed to us by introspection can be stated in a very modest compass indeed, and, of course, far more so, if there is really only one simple act of apprehension or awareness. This conclusion appears to raise a difficulty in the minds of some people. It seems to them that, if there really are these mental acts or this mental act, revealed to us by introspection, we ought to be able to say much more about it and describe it in much more detail. I think it is that demand that has led some thinkers to deny that we have any direct acquaintance with such acts at all, claiming that we know them only by inference. It has led some, like Bosanquet in his *Three Chapters*, to deny even the existence of what he calls the "bare act" of knowing, distinguishable from what is known; and others, like Titchener, to claim that they can find nothing there but imagery. But the conclusion appears unjustifiable. We have plenty of experience of facts which have to be thus simply apprehended. All the simple sensible qualities are like that. It does not even mean that the act is, in Prof. Dawes Hicks' phrase, "diaphanous." It may perfectly well have a positive quality of its own, and yet that quality not be analysable into elements or describable in other terms. That, indeed, is what I believe to be the case in regard to the act or acts of cognition. And it appears to me that the same considerations apply to the act of volition.

If we were merely knowing, or merely willing creatures, I think we should have to say that introspection gave us the fact

that we knew and willed, and no more. And the act, which was introspectively known, would be the same whatever it was that we knew or willed. But when we come to deal with feeling, it seems that there is a very much richer field for investigation by introspection. There is certainly a much greater variety of different feelings, which can be directly distinguished by introspection. There also appear to be greater complexities of feelings, than of cognitive or volitional acts, so that there is more room for the work of analysis, though no doubt here as elsewhere we come in the end to simple elements which cannot be further described. Finally, it seems to me undoubtedly much easier to focus the attention on the feelings than on the acts of knowing or willing, possibly for the reason that there is more variety and diversity about them to excite the interest. So that in describing and classifying different forms of feeling, in examining their relation to each other and to the other mental facts, there is a large field of investigation in which introspection must undoubtedly play the chief part.

Finally, there is an important class of experiences which I would unhesitatingly include among the data of introspection, and that is the class of organic and motor sensations. It appears to be the view of some psychologists that these cannot be known by introspection, as being processes in the body, and not therefore indubitably mental. But the view seems to be the result of a view of the relations between body and mind arrived at on other grounds, than by an examination of the experience itself. As far as I can see, the experience of being aware of our body in this way is of exactly the same general kind as the experience of any admittedly mental act, which we regard unhesitatingly as an object of introspection. In that connection the extremely important remarks of Prof. Stout about the awareness of ourselves as embodied selves deserve the closest attention. The conclusion to which they seem to me to point is that motor and organic sensa-

tions are really the typical matter of introspection. It appears to me extremely likely that our awareness of our own acts of knowing, for instance, is really the organic sensation of certain processes in the brain. If that were so, it would suggest that all introspection was simply attention to the mental side or the mental quality of certain bodily processes. It would be the awareness of the body literally from the inside. Though Professor Stout appears unwilling to accept this conclusion, it seems to me that the important facts to which he calls attention point definitely to it, and I can find no real objection to it from our knowledge of the experiences themselves.

These few and inadequate suggestions are here put forward very tentatively, and I feel no absolute certainty about any of them. And this very fact suggests to me doubts about the value of introspection as a basis for exact and systematic knowledge of the mind. A review of the history of psychology and its controversies would tend to strengthen these doubts. I have heard it rumoured in psychological circles that in a controversy between two or more leading psychologists, the pupils of the one can nearly always be relied upon to find in their introspection just those facts which their teacher maintains to be there, while the pupils of the other will find quite different facts which point to the exactly opposite conclusion. There is surely nothing comparable to such differences of opinion about the bare observable facts when we are dealing with the external observation, which forms the basis of the physical sciences.

These and similar considerations lead me to suspect that, while the difficulties of principle in the way of believing in the possibility of introspection at all have been much exaggerated, the practical difficulties in the way of getting an exact and reliable account of facts by the method of introspection have hardly ever been taken seriously enough. If we consider the conditions which have to be fulfilled before external observation

can rise to the degree of accuracy and precision necessary to form the basis for the development of a science, we shall find that hardly any of those conditions are fulfilled by introspection. Professor Dawes Hicks has called attention to one of the most important of these conditions. In scientific observation we are guided by certain well-defined principles of selection, which, to put it crudely, enable us to get at our precise and accurate results by leaving out those facts which do not admit of precision or accuracy in the observation and recording of them. But for introspection we appear to have no such principles of selection at all. Then, again, it is worth while considering how far the work of scientific observation is dependent upon the use of instruments which could not conceivably be used in introspective study.

The demands of the printer make it imperative on me to bring this paper to a close. But before doing so I must say a word on the question which I raised at the beginning. How far do we actually use introspection to give us information about our own mental life? It may seem at first sight clear that introspection is the obvious and natural method to use for the purpose. And yet I would put forward as a suggestion for consideration the view that, in actual fact, even when we are dealing with our own mental processes which are capable of being dealt with by introspection, we often prefer not to face the effort demanded, and rely for our knowledge on inference from our own outward behaviour. It is clearly the case sometimes in memory that we recall the way we acted and the words we used more clearly than the feelings that we had. I have heard a man say, "I must have been very angry to have said that." But I believe that we could extend it further than that, particularly if we remember the extent to which all introspection is or involves retrospection. Do we not sometimes know that there must be some distinction between different emotional states, not because

we have attended to them carefully, compared them and observed the difference, but because we find ourselves using different words for them, or acting in different ways? No doubt there must always be the original undiscriminating awareness, which has been expressly and, I think, rightly distinguished from introspection. But for further knowledge and discrimination of this, I am inclined to suspect that we much more often rely on inference from our behaviour than on attentive introspection. If that be so, it suggests that our knowledge of our own minds is much more like our knowledge of other people's minds than is usually supposed, and that the specially introspective method of obtaining this knowledge occupies a much smaller place.

(See *Appendix*, p. 244.)



IV. SYMPOSIUM: THE PROBLEM OF MEANING.

By F. C. S. SCHILLER, A. C. EWING and W. F. R. HARDIE.

I. *By* F. C. S. SCHILLER.

THIS Discussion is an attempt to raise what is probably the most fundamental of all questions for Logic: for Meaning is prior to Truth, and if it cannot be grasped all logical questions become meaningless. Our discussion may, not improbably, fall short of success, if only because of the limitations of our space: but we shall have deserved well of the academic republic, if we can stimulate logicians to think about the presuppositions and assumptions of their science.

Among these there is none more remarkable than the assumption of the reality of Meaning. It is the presupposition which underlies and dominates our whole intellectual life, and without it philosophy, science and action would all be paralysed. It is plainly prior to any particular assumption as to the *sort* of Meaning ("causal," "teleological," etc.) our experiences may be taken to have, and is expressive of the human mind's first great act of faith in its ability to "understand" and master its experience. We all assume that all that is, or happens, "has a meaning," and endeavour unremittingly to find out *what* it means. It is only in a few abnormal states of dream or coma, in which the mind seems to sink into a condition of almost pure "contemplation," that we desist from the attribution of meaning to the phantasmagoria of events: this attribution would hardly be so universal if it were not of the utmost importance. It is, in fact, the first claim of a subjective postulate to "objective

validity," and if it is conceded, *nihil obstat*, in principle, to any further such claims. It is, moreover, a *postulate* and not a "necessity of thought." There is not the least difficulty in thinking of a succession of events that should be void of meaning.

More specifically, it may next be observed that the assumption of Meaning serves a dual purpose, first (*a*) for home consumption ; secondly (*b*) for export. For home consumption Meaning is a guide for action, for export it is a means of communication with other minds. Both are of the greatest vital importance.

(*a*) Man is a creature which proverbially, "looks before and after." But he does not do either willingly and from natural inclination, and the same necessity impels him to both. His vital concern is with the *future*, and he is not, and cannot be, indifferent to what is going to befall him. But his means of forecasting the future are all fallible and insufficient. Even though his natural equipment has largely been shaped by natural selection he cannot trust it, for he has frequently changed his mode of life, and his faculties change less rapidly than his conditions of life, and so are apt to lead him astray. His instincts, his perceptions, his tastes, the prejudices he takes for "*a priori* truths," his multitarian methods of divination, are all fallible ; the prescience they mediate is pre-scientific. The only guide intelligence can use — and even this has to be used intelligently — lies in the past : it can, and must, "learn from experience." So it is with light from the past, as with a searchlight, that we illumine the future : we peer into it with eyes prepared to recognize what we have already seen.

But, vital as it is, such prescience does violence to our natural impulses. These prompt us to *act without "reflection,"* without the delay and arrest of action which "stopping to think" entails. We have to school ourselves to do this, and we do it only because we find it *pays*. It pays, however, only if we think to some purpose : if, that is, the analysis of the situation in which we

find ourselves when we stop to think before we act, operates a *salutary* departure in our action from that to which our impulse prompted us.

Now the improved reaction which reflection renders possible is mediated by two intellectual assumptions. The first is that the situation is *not unprecedented*, and can be analysed into factors some or all of which can be identified with something in the past : the second is that it is *not unintelligible* but contains what is indicative of future events, *i.e.*, *means* something for the future. Thus Meaning is a *bridge* leading from the present to the future : it is prospective, and has reference to a future which establishes the value, the truth-or-falsity of the anticipations we take the present meaning to indicate. But our bridge is built of materials taken from the past : all the meanings we ascribe are based upon memories of the past. To "understand," therefore, is always to read in the light of the past, and to "explain" is to reduce the new and problematic to the old and familiar. Thus it is the function of Meaning to knit together our present, past and future into a continuous experience. But because history never quite repeats itself, and the new case is never quite identical with the old, and our identifications, therefore, are always risky and *disputable*, our methodological assumption that we can "understand" and "explain" is a "fiction." All the meanings we ascribe, therefore, should be taken as in principle, *experimental* and susceptible of revision : they all demand verification. Moreover, the future is always "contingent" and never absolutely certain : if, therefore, Meaning is concerned with it, it too becomes contingent : we may even infer that if this factor of contingency could wholly be erased from our thinking it would become unmeaning.

(b) As man lives gregariously he does not desire to monopolize either the meaning or the truth he believes himself to possess but wishes to impart it to his fellows. For this purpose *sounds*

are ordinarily the most convenient vehicles, as they can be repeated in easily identifiable ways, and when repeated on similar occasions easily absorb and recall meanings they have conveyed which, coalescing with the sounds, become *their* meaning. In this way sounds become "words," and words become the normal vehicles of intersubjective communication. Words are our chief instruments in the transference of meaning.

A transference of meaning involves always a transaction between the parties to it: it is strictly an invitation from A to B to assume the "same" meaning-attitude towards a (potentially) common object, where "the same" means identity in (irrelevant) differences. The only test A ultimately has that B has "taken his meaning" is that he acts in the way required. *E.g.*, says A, "Please shut the door." B. "Which door?" A, "That door." If B then shuts it A infers that he has successfully "communicated his meaning." In the last resort action is appealed to, to clinch understanding.

Words, however, are very potent in the earlier stages of inquiry, and it is hard to keep them in their place. So useful are they, and so convenient, that, almost inevitably, they become more than mere vehicles of communication. They emancipate themselves more and more from the minds that use them, rebel against their makers, and lay claim to an intrinsic, substantive meaning of their own. In practice these pretensions have to be largely recognized. It is convenient to distinguish between the meaning of the words and the meaning of those who use them. Thus we can all understand that the three little words *I love you* mean a declaration of love, though we should not know what they actually meant in use until we were told who "I" and "you" were. So the possible divergence between *verbal* and *personal* meaning evidently detracts from the usefulness of words.

It also raises a difficult problem for logic. Which meaning is to be accounted primary, the personal or the verbal, the meaning

of the words or that of the man who has used them to express *his* meaning therewith ? Evidently conflicts may arise between them : the user may find words inadequate or recalcitrant to the uses to which he wishes to put them, or, again, he may misuse and spoil good words. In general only a master of language will be able to bend it to his will, and will succeed in expressing his meanings adequately with the extant meanings of the words he uses, and masters of language are few and far between. In some cases, no doubt, it is easy enough to settle which is right : where conflicts are due only to the ignorance or lack of skill of those who are trying to use the words, their established meaning ought clearly to prevail over that of their users : but this is not always so. In a numerous and important set of cases we have to depart from the traditional meanings of words -which, after all, are only a product of past uses - in order to preserve their usefulness. What is one to do when one wishes to express meanings that are definitely *new* and for which language has made no provision ? Are we to respect the integrity of the traditional meanings and to coin new words, or to keep the old words but to change their meanings, extending them so as to cover the new meanings ?

This alternative is constantly occurring in all the progressive sciences, and the choice is not easy. There are drawbacks whichever expedient we adopt. If we construct a new technical terminology it will take time before it is understood, and it puts out of use a number of familiar old words which will become obsolete. If we prefer to retain them they may have to undergo the strangest changes of meaning and become liable to charges of self-contradiction and literal absurdity. Have we, for example, a right to speak of "atoms" which are not longer "indivisible" and of "species" which go through Darwinian evolutions ? Pedantically speaking we have *not* : every good scientific argument must resign itself to the reproach that it *always*

contradicts its premisses and changes the meaning of its terms, just because it adds to our knowledge. In actual practice the scientist, though he invents plenty of technical terms, more often defies logical pedantry and retains the old words, for reasons of convenience. The "atom" continues in use, though it is now weighted with all that physics has learnt for the past 2,000 years; so do "consider," "influence" and "disaster," together with "jovial," "mercurial" and "saturnine," although their astrological significance is ignored.

It is clear, indeed, that to change the meaning of words in order to accommodate new knowledge is the only practicable policy. For if we tried to provide each new meaning as it arose with a new expression, we should have to recognize that no word can ever have absolutely the same meaning twice. So we should be committing ourselves in principle to a language consisting entirely of *ἀπαξ λεγόμενα*. Mr. Russell once represented this as the ideal of a perfectly accurate and adequate language, but it is evident that he had not considered the practical question of how meanings so expressed could be communicated to others.

Now the practical question for everyone who uses words is how to utilize *their* meaning for *his* purposes. This he has every right to do, for it is in the service of such personal meanings that words have acquired their existing meaning. It is an acquired thing, a product of their past uses. If these uses have been observed and catalogued they can be looked up in a dictionary, which, if it is sufficiently full and exhaustive, may, theoretically, contain *all* their past uses. But no dictionary can predict or control future uses, and the very next occasion for the use of a word may entail so considerable and distinctive a deviation from its past uses that all future dictionaries will have to record it. Apart from its use, therefore, the meaning of a word is only *potential*; it is actual only in its use, and dictionaries are volumes of history not of prophecy.

The problem then for a user of language is this : " Taking it for granted that the established meanings of words are so and so, how shall I select words which will effectively convey my present meaning ? " In the pursuit of this aim he may take any liberties with language that seem likely to be effective, indeed, he must take *some*. He always risks failure, for which the penalty will be that he fails to convey his meaning, and is not understood. But it is better to run a risk than to stick in the mud. If he succeeds he has made language perform its proper function, and has made it more expressive ; it is, therefore, beside the point to object that he has not restricted himself to the traditional meanings of words. Nor can it be contended that his words were unintelligible when they have in fact been understood. Common-sense, therefore, is willing to recognize that personal meaning is the primary and important meaning, and that verbal meaning is secondary and derivative : it always allows an appeal from the meaning of the words to the meaning intended by the man who used them, and condemns an argument from the latter to the former as " merely verbal."

Logic, however, shows a strange reluctance to endorse this common-sense attitude. In all its traditional forms it insists on restricting its doctrines to verbal meaning. It abstracts from personal meaning altogether, as I have shown in my *Formal Logic*. Logicians do not indeed all so openly commit themselves as did F. H. Bradley in his amazing declaration that in Logic (as he understands it) " you not only endeavour to say what you mean, but you are once and for all and for ever condemned to mean what you say " : * but they all act upon it. Whether they profess to conceive Logic as dealing with " propositions " or with " judgments," they all in fact abstract from personal

* *Essays in Truth and Reality*, p. 234. For further comment on this revealing passage, which first appeared in *Mind*, No. 72, pp. 500-501, see *Mind* No. 73, p. 41.

meaning and discuss nothing but dictionary-meanings, which are not actual meanings at all. This renders it irrelevant to Logic what the parties to an argument actually meant by it, but gives scope to endless discussion of the infinite "ambiguities" of the words they used. Such discussion is necessarily futile, but it makes Logic into a word-game as amusing to some minds as crossword puzzles are to others.

By so doing, however, Logic renounces the duty of understanding and guiding our actual thinking. It ceases to be a serious study of the nature and value of our cognitive activity. It loses touch with every problem of science and philosophy, with every vital interest. It becomes a mere game in which words are the counters and in which the ultimate appeal is to the dictionary in which "meanings" are stored. And it rests entirely upon an arbitrary abstraction which is rarely avowed and never justified.

The conclusion to which these reflections are intended to lead up is a dilemma. Either the covert assumptions of the traditional Formalism should be rationally defended and justified, or a systematic attempt should be made to reorganize Logic, starting from the perception that the real and fundamental meaning is the personal, and constructing on this basis a logical theory fully as *systematic* as the traditional "logic," far more coherent, infinitely more useful in elucidating actual knowing and the procedures of the sciences, and even quite as capable of providing provender for the examiner. The former alternative has nothing to its credit but two thousand years of failure to apprehend the actual procedure of the sciences, and offers not the faintest prospect of success: the latter takes its stand squarely on the indisputable reality of personal meaning and its origination in actual problems, and amounts to much the most radical reform of Logic that has ever been attempted.

II. *By A. C. EWING.*

THE important thing about meaning is what the man really wishes to convey, not the words which he uses: therefore we must go back to that in logic, to stop at the other is mere pedantry. This is, I think, the essence of Dr. Schiller's contention. That it embodies at least a very important side of the truth there can be no question. In fact, it appears so obvious that at first sight it would seem that there is nothing more to be said, and that my paper must dwindle down to a single word—*plando*. But, unfortunately for the patience of my audience, I decided to follow Dr. Schiller's advice to look at the real meaning rather than the words, and applied it to the distinction between personal and verbal meaning itself with results that rather disturbed this equanimity.

In doing so I have confined myself to meaning in the second of the two senses used by Dr. Schiller, this being the essential one for his argument. In this sense it only applies to something used by a rational being as a sign of something else, and this sign is normally, though not necessarily, a set of words. The essential point about it is that it involves an invitation to somebody else to adopt a cognitive attitude similar to that which the speaker or writer of the words has himself adopted. But for the words to have this effect they must be understood by the listeners or the readers, and for that reason they ought to express a similar attitude to that which the latter would be expressing if they used the same words. They need not, however, express an attitude similar to that which the same words would express in a different

context, or even, in some cases, similar to that which they would express in the same context to people with different associations and memories. We must take into account not only the dictionary meaning of a word, but its meaning *in this context*, and for the people to whom it is addressed. This we must admit at once if we are to avoid pedantic quibbling, and the practical, and even logical, importance of this is certainly not to be denied. Clearly it is foolish to discuss words in preference to real meanings.

But here a difficulty arises. Unfortunately I am not gifted with telepathic powers, and therefore I can only arrive at a man's real meaning by considering his verbal meaning. We have not yet arrived at a personal meaning that is not also a verbal meaning: we have only shown that the verbal meaning varies according to the context and the group which is concerned with it. It still remains true that a man can only convey to others by speech what is accepted by them as the meaning of the words he utters. If this is something different from what he really means, they have no way of discovering the latter except by either comparing the words with other words used by him on previous occasions or by psychological inference from his actions. Dr. Schiller would seem to rely on the second method, and this is indeed the only way of making oneself independent of words, but it is surely not easily available unless the speaker is known personally to his audience and unless it is a very concrete practical question, and not available at all in reading a book. Besides, if and in so far as we arrive at his meaning in that way, it is not *he* who is conveying the meaning, any more than a man could be said to have told me the truth because by psychological inference I was able to discover the truth from a lie which he had told. We are again driven back to words (or other signs), and if they do not mean in a real sense the same thing to the listener as they do to the speaker, they will simply not be understood. How to

reconcile this with the points made by Dr. Schiller I shall try to show later. I do not think we can save ourselves by falling back on "designation," for that is effected either by words like demonstratives, or by pointing (or an equivalent), which is itself a sign with a fixed meaning, though a natural, not a conventional, one. Anything that we can say about verbal meaning would apply to a language for the deaf and dumb, in which pointing took the place of the word "this." I do not say that, *e.g.* "this" has a fixed meaning *by itself*, but if we are to use language properly it must have a fixed meaning *in its context*. A man may mean more than he says, but by his words he can only convey verbal meanings. If he does not mean what he says, his meaning is not communicated and can only be enjoyed in solitude. He can, indeed, go against the dictionary meaning of a word, but he can only do so with success if he indicates what he means through the combination of words which make up the context, that is, he can only break with the verbal meaning of a word by substituting for it the verbal meaning of a whole sentence or longer passage. Words are useless for conveying meaning if there is not an agreed meaning for the words, though I admit that this meaning may vary according to context and audience, and is emphatically not the same for all time. But at least two persons, the speaker and a listener, must agree about it. Thus, in so far as we are concerned with communication and not with solitary thought, the distinction seems to have faded away, leaving only verbal meaning, a conclusion which Dr. Schiller has much justification for finding monstrous.

But, of course, there is another side to the truth. If personal meaning can only be understood by others as verbal meaning it is equally true that verbal meaning is always what some person or persons actually understand by the words. Words do not mean anything in themselves, they only mean what they are made to mean, and any meaning given in the dictionary

represents what at least one person intends to convey by the words.

However, I do not hold that there is no distinction between the two kinds of meaning, and I think it will help us to find the distinction if we turn to a paradox over which the reader of the first paper seems to gloat. It is the paradox that we can never mean the same thing twice by the same word. There is a sense, I think, in which this cannot be denied, but unless coupled with a further explanation and limitation its effects are bewildering in the extreme. For how can I understand what you say if the words do not mean the same thing to me as to you, and how can I prove anything at all if the meaning of the words changes so that, *e.g.* the S which was M in the minor premiss is not the S which is P in the conclusion ? I am unfortunately unable to maintain the philosophical calm with which the first reader seems to contemplate conclusions that contradict their premises. But need it be assumed that the meaning is necessarily *any one definite* thing conceived in any one definite way ? If it is, then I agree that we change the meaning somewhat each time we use the word. But there is another sense of meaning which is at least equally important because without it we could not understand each other at all. For, although we may and must vary our meaning, we can only legitimately vary it within certain limits, and all we want to convey may be the fact that a thing falls within those limits. Thus, if I say something about dogs, it *may* not matter in the least if the listener's conception of these animals is based largely on lap-dogs and mine largely on Alsatians, because they both fall within certain limits covered by the term, dog, and, if the limits are too wide for my purpose, I can use fresh terms so as to narrow them, though it remains an obvious truth that there is a risk of such differences of experience and meaning giving rise to mistakes. Thus, the verbal meaning may be regarded as the limits which enclose an indefinite number of

possible personal meanings. We may vary in the meaning we attach to a word within these limits, but not outside them, and, if we keep within these limits, our words are understood and our arguments remain valid. Thus, even if your conception of dogs is decidedly different from mine, you understand when I say dogs are usually tame animals; if, however, you understood by dogs what I understand by wolves, the purpose of my remark would be thwarted because you had gone beyond the limits allowed in this case. Similarly, if I argue this is a dog, some dogs will bite when disturbed, therefore I must not disturb this dog I alter my conception of the animal in the course of the argument from that of a perfectly harmless being to that of a potential enemy; but I still do not alter it in a way which vitiates my argument, because the latter does not depend on the animal being what I thought it in *all* respects. If, on the other hand, I discovered that it was not a real dog at all, but only a wax model of one, it would be a difference that vitiated the argument by contradicting my premises. Again, if we ask what definite quality, *e.g.* "red" stands for, we cannot find any one quality that all red things have in common. For there would be no redness left if you took away their particular shades of red, yet these are not all the same, but qualitatively different. It would seem, then, that "redness" does not stand for any one quality, but for all the qualities that vary within certain limits. To fulfil the purpose of language, we need not convey *exactly* what we mean, and for that reason it is still possible to depend on verbal meanings which give not one definite concept, but any or all the concepts within certain limits. Or, if they do give any one property, it is just the property of falling within those limits. This may be all we wish to convey, and, if we do wish to convey more, our main purpose, at any rate, is not thwarted by only conveying this much. A physicist has a different conception of fire from what I have, but it does not follow that if he said

"the house is on fire" he would wish to convey by those words anything different from what I should. He certainly would not dream of conveying his whole scientific conception of fire thereby! Personal meanings, in the sense of our full conception of a thing, vary from man to man, the *limits* within which personal meanings fall constitute the only meaning which different people have in common, and it is this for which the words stand. When a word is taken in its context and not in isolation, the limits may be very much narrowed, but they are still there, since any assertion may be conceived in somewhat different ways.

Another reason why the variation in personal meanings does not lead to disastrous results is because the connotation may vary while the object or objects denoted remain the same. The fact that a historian understands very much more by Caesar than a schoolboy does still leaves the meaning of the term for both identical in the important respect that they refer to the same person. The historian may know a great deal more about the policy and historical significance of Caesar, etc., than the schoolboy, but he never intends to try to convey all his knowledge of Caesar by the mere use of the word. He only intends to convey that the person to whom he is referring is identical with the person whom the schoolboy knows to have been murdered in B.C. 44.

A somewhat similar explanation may be given even of a word like "here" or "I." It is true that "I" does not stand for the same person when you use it as when I do, but it remains equally true that "I" always stands for the speaker or writer who does use it, and without this identity it would become senseless. If that is the meaning of "I," it is not subject to this kaleidoscopic variation; if we understand by its meaning any individual person to whom it refers at the moment, it is thus subject, though we must remember that "I" by itself never

means any one particular person, only "I" in a given context.

What has been said is not intended to contradict, but rather to supplement, the thesis so ably maintained by the reader of the first paper. It remains true both that meaning always varies according to context, and that it can only legitimately vary within certain limits; both that there are no meanings which are not personal, and that none can be communicated unless they are meanings of words or other signs: both that the meaning in the sense of *all* we think is different for each use of the word, and that the meaning conveyed may be the same. But I should like to conclude with a question-mark. Can Logic escape the bondage of verbal meanings after all? We have discovered two ways* in which verbal meaning may be regarded. According to the first, it covers all meanings communicable by signs, but if so, we may ask what meanings are there with which Logic can deal which are not communicable by signs? According to the second, it is reduced to classes of personal meanings (or the limits within which each of these classes must fall), but if so, could Logic avoid verbal meanings except by refusing to deal with *classes* of judgments at all? The only personal meanings are purely individual meanings, and Logic has forsaken individual meanings as soon as it classifies or generalises in any way. Logic must certainly deal with the meanings of sentences as a whole, not just with the meanings of words, when there is any conflict between the two; it must certainly be on its guard against supposing too rashly that the same meaning is conveyed by the same verbal form (*e.g.* that the grammatical subject is always the logical subject, or that negative propositions are never really

* I am not excluding thereby the ultimate coincidence of the two ways; I do not see how we can communicate, strictly speaking, anything but *classes* of personal meanings.

positive in meaning). But, since from the nature of the case it is bound to deal not with all individual judgments as such, but with classes of judgments, I am at a loss to see how it can escape the stigma of verbal meaning (*if*, indeed, it be a stigma), though it may, I admit, substitute for the verbal meaning of a word the verbal meaning of a sentence.



III. *By* W. F. R. HARDIE.

WITH Dr. Ewing. I propose to restrict myself to the sense of meaning in which, as he says, "it applies to something used by a rational being as a sign of something else." The sense of "meaning," according to which it may be asked whether what we experience has meaning, is apparently different: meaning here is almost equivalent to connection or implication. Such a question is the general question how knowledge or thinking is possible, and is plainly too wide for this symposium. The special problem which I take to have been raised by the first two papers is concerned with the bearing upon our conception of the science of logic of the fact that thought is expressed and communicated in words. We are to take the "meaning" of a word or sentence as being that of which the word or sentence is a sign. It is a *significatum*. Now, if words are to be effective in the communicating of meaning, plainly their meaning must have some fixity. But in actual thinking their meaning is not wholly fixed. Thus (a) it varies in different contexts, and (b) as used by different persons, and (c) if knowledge is to advance, the meaning of words must develop. Dr. Schiller suggests that logicians have tended to assume fixity in the meanings of words, and by so doing have abstracted from their meanings as actually used, thus failing to analyse the real operations of thought. This indictment of logicians raises the important issue of the relation between thought as it actually occurs and thought as it interests logical analysis. I shall begin by stating what seems to be ground common to the two previous papers.

It is agreed (1) that, in order to convey meaning, we have to use signs which have no natural affinity, or not necessarily any

natural affinity, to that which they signify. Dr. Schiller suggests that "in the last resort action is appealed to to clinch understanding." I agree with Dr. Ewing in finding this difficult. In the infancy of language it may have been so. But in the exposition of a scientific or philosophical theory there can, it seems, be no appeal to action. At the very least it seems true that in certain cases meaning can be successfully conveyed without action (except the action of using words); so that there can hardly be any essential connection between action and the communication of meaning, even if it is true that it was action which originally made communication possible. It is agreed further (2) that, if we reflect on what we are to understand by the meaning of a word or sentence, a distinction emerges the recognition of which has some importance for the science of logic. This is the distinction, in Dr. Schiller's terminology, between "personal" meaning and "verbal" meaning. If intercommunication is to be possible, words have to be regarded as owning a constant meaning or set of meanings such as can be recorded in a dictionary. In actual usage the meaning varies according to the context, or according as the word is used by different persons or by the same person at different times. The first is the verbal meaning: the second is the personal meaning. I accept this as a preliminary account of facts, and agree further with Dr. Ewing that the verbal meaning is what some person or persons mean or have meant by the words.

Thus the fact to be dealt with by logic is that all words or sentences have a meaning which is, in some sense, variable. Is logic, as "the serious study of the nature and value of our cognitive activity," to investigate this activity as it actually occurs in the history of persons, or is it to study an *abstractum* from these actual meanings which, to some extent, ignores their individual variety? Dr. Schiller seems to make no allowance for any abstraction from personal meaning. Dr. Ewing agrees that, so

far as possible, it is desirable to study personal meanings. But he denies that the endeavour can succeed, since we have no access to personal meanings except through sentences whose meaning varies within limits. Hence logic can only deal with "classes of personal meanings" or meanings which "vary within certain limits." I can only understand this as a confession that logic has to sacrifice something of the precision and definiteness of personal meaning, since, it appears, no such meaning can be conveyed *exactly*. "It is bound to deal, not with all individual judgments as such, but with classes of judgments." Dr. Ewing is uncertain whether this is a "stigma." But surely an incapacity to study individual meanings in their utmost exactness and precision would be a grave stigma on logic, and would justify Dr. Schiller's eagerness to rescue the science from such failure to grasp the actual.

I may now state the points on which it seems to me important to dissent (at least as regards emphasis) from the above suggestions, or to ask for further elucidation. I wish to argue (1) that there is an important sense in which logic must abstract from personal meaning: I must add that I am not convinced that the logics of Bradley and Bosanquet really defend abstraction in any other sense than in this defensible one. I wish to argue (2) that it is not true that logic is restricted to "classes of meanings" in any sense in which such a restriction could be regarded as a reproach. Very likely Dr. Ewing will agree with what I have to urge. If so, I claim only to supplement what he has written. I shall then try to suggest (3) that the problem of the communication of meaning is not really distinct from the problem of the nature of implication and of legitimate inference, and that, therefore, there is no special "problem of meaning" the solution of which can precede or govern the logical study of meanings.

(1) Any actual course of thought as it occurs is affected by all sorts of interruptions and psychical accompaniments which may

eat into the singleness of the process. They may even avail to kill the nerve of the argument, in which case the process has to begin all over again. Dr. Schiller would not, I take it, hold that logic has to describe all these interruptions and irrelevant accompaniments. This must be so if they fail to qualify or affect internally the meaning of any of the terms used in the argument. And even if they do qualify them logic must be entitled to abstract from the qualification. If I am a scientist studying the anatomy of a black cat, and if I, at the same time, hold the superstition that to meet a black cat is lucky, that superstition, even if it qualifies, as it will, my personal meaning, must be left outside the logical account of my anatomical analysis, though it would be included in a psychological account of my cognitive processes throughout the analysis. Thus the logician may legitimately abstract from all elements in personal meaning which fail to have a positive bearing on the inferential process which is being studied. This may be made more definite. The study from the standpoint of logic of any process of thought is not concerned with anything except what enters into the process as premiss or conclusion, as ground or consequence. But this denial may be qualified in the following ways: (a) logic is concerned with the whole psychical setting of thought in so far as it must give a general account of its own relation to psychology. (b) In so far as logic is interested in the causal explanation of error it may describe the distraction and self-frustration which, through failure to discriminate what is and what is not relevant, tends to beset actual cognitive processes. (c) If it were the business of logic to "guide our actual thinking," the logician might issue suggestions towards the avoidance of error. But it is surely not the business of logic to guide our actual thinking except indirectly by explaining the characteristic features of thought at its best.

In the above sense, therefore, it seems legitimate and necessary for logic to abstract from personal meaning. Such abstraction

does not imply that logical meaning is an attenuated replica of personal meaning. It makes in the direction not of impoverishment, but of enrichment through the elimination of what merely weakens and dilutes the argument. What logical analysis is to leave out is only what has failed, through irrelevance or incoherence, to contribute positively to the argument under scrutiny. Meanings as studied by logic are, therefore, in one sense more abstract, but in another sense more concrete than personal meanings. Logical meaning is more abstract in that it omits the interrupting and merely incoherent factors which marred the actual process. It is more concrete in the sense that it places before us all together and in its oneness a nexus of meanings which in actuality was not so knitted together and made one, but was disfigured by accretions and dissipated by discontinuities. Essentially, then, the meaning which interests logic is not less full, but fuller than any mere "personal meaning" could be. Personal meaning, if the point may be put paradoxically, may thus be regarded as an abstraction from logical meaning since it spreads out and dilutes with alien matter the full and systematic thought-connections which are of interest to the logician. This, I suggest, is the reason why logicians like Bradley and Bosanquet insist on distinguishing the standpoint of logic from that of psychology.

And this (2) brings me to my grumble against what seems to be the suggestion of Dr. Ewing's paper, the suggestion that the thought studied by logic, being a "class of judgments," is less precise than an individual or personal meaning. It is true, of course, that for practical purposes we often use words which are intended only to convey a meaning which varies within limits. It is true that in our every-day judgments a partial identity of meaning for the same words as used by different persons is quite sufficient and is all that it may be possible to achieve. But does not this element of arbitrariness tend progressively to disappear as the higher reaches of thought are

approached? When mathematicians study each other's works the differences between their individual meanings must surely tend to dwindle towards insignificance. Two unmechanical laymen talking about motor cars may mean very different things. But two trained mechanics talking about some special part of some special type of motor car may well be making the same judgment. It is true that meaning varies with context; and the remedy is to go on defining the context and, by so doing, try to insure that the reader or listener is coming to apprehend the same objective system as yourself. Hence, the fuller and the more "individual" your meaning becomes the less is it liable to misunderstanding and the more easy is it to communicate to anyone who is willing to follow with labour the lead of your argument.

I wish in this connection to ask Dr. Ewing to explain further what he means when he says that "the *limits* within which personal meanings fall constitute the only meaning which different people have in common." Are the persons involved (a) supposed to be conscious of those limits (as seems to be implied by saying that they are a common meaning), or (b) is each person aware only of his own personal meaning? If (a), then, in knowing the "common meaning" of red, I also know and could specify so as to be understood certain particular shades which could be meant by the word: and this seems to imperil the contention that individual meanings are uncommunicable. At least the particular shades of red which are the limits will be a common meaning, and I do not see, in principle, why intermediate shades should not also become "common" through the construction of a series. If (b) the persons are not aware of the limits, the property of falling within them could never be something which they wished to convey since the words "falling within those limits" could have no meaning to persons thus unaware. Again, to say that the common meaning of red is constituted simply by

the fact (of which no one was aware) that its personal meanings have in common the property of varying within certain limits (a property *ex hypothesi*, unknowable so long as it is held that particular shades are incommunicable meanings) would be to exaggerate grossly the extent to which we are in the dark about each other's meanings. It would be quite untrue of, say, the common meaning of "triangle" to geometers or of "mammal" to biologists.

My conclusion, therefore, is that logic studies not classes of judgment but specimens of judgment, making abstraction *only* in the sense indicated above from the actual psychical setting and studying the nexus of meanings itself. What seems to be wrong in Dr. Ewing's view that logic "forsakes individual meanings" is its suggestion that the individuality and the communicability of meanings vary inversely. To suggest that they varied directly would be nearer the truth. For if, as appears, the individual meaning is the more full and concrete it hangs together more inevitably and more forcibly compels assent than any "generalised" meaning. The implications within it are clearer and more fully worked out. Hence it must be easier to communicate than is any abstraction from itself. By nature the whole truth about anything or everything is more communicable than partial truth or error. This is, perhaps, only to say that in every subject there is one right view and an indefinite number of inadequate or wrong views. Hence the nearer a person gets to the right and complete view the more likely he is to be able to communicate without hitch with other minds at his own level. If Dr. Schiller were to question my right to say that there is one truth, I should hold such unity to be presupposed in all thinking.

Let me redefine what I have urged by stating in an exaggerated way where I think it supplements or differs from the two previous papers. In answer to Dr. Schiller's view that logic has gone wrong by abstracting from personal meaning and must

reform itself by studying thought as it actually occurs I have tried to hold that logic has been right to abstract from personal meaning, because personal meaning is more abstract than the meaning which logic studies. Dr. Ewing has said that logic cannot lay hold on individual meanings, but only with meanings which vary within definable limits. I have urged that there is another side to the matter. The nature of thought is such that the fuller and more precise the exposition of any system becomes the less is it liable to be misunderstood through failure to grasp its nature as a whole which manifests in all its details a consistent character.

I think that (3) this is the answer (perhaps too obvious) to the question how meanings can be conveyed without miscarriage and to the question what meanings are easiest to convey with the least risk of misunderstanding. I am not sure how the two previous papers mean to answer this question. Dr. Ewing seems to suggest that we never communicate our meaning with absolute precision. But this does not inform us how or when the ideal is approached. Dr. Schiller refers to the "masters of language," who can "bend it" to their will.* But this so far—apart from the specification of the typical logical conditions favourable to the transference of new meanings—is only the advice of Humpty Dumpty to make words mean what we want.* Mastery of language seems entirely secondary to mastery of the subject-matter to be communicated. If the thing is held, the words which follow will not be misunderstood. So far as the meaning to be conveyed is fully thought out, so far as it is (as is the case with any scientific theory) a whole connected in some degree by

* "When I use a word," Humpty Dumpty said in rather a scornful tone, "it means just what I choose it to mean—neither more nor less." "The question is," said Alice, "whether you *can* make words mean so many different things." "The question is," said Humpty Dumpty, "which is to be master—that's all."

logical implications, so far is the risk of its being misapprehended diminished—provided mere perversity in the use of language is avoided. The fact of terminological innovation, the use of old words in new senses, offers no difficulty of principle. So far as the attention of the reader or listener is successfully directed to the portion of reality under scrutiny, he becomes alive to the connections which operate within it. The premises are put before him, and he himself, in apprehending the conclusion, perceives the necessity and naturalness of enlarging the meanings of the terms employed. If implication and inference (the knowing one thing through another) are facts at all, the self-development of meanings is comprehensible. If they are not, meaning and thought are only Hume's "blind and unintelligible instinct in our souls."

I think that Dr. Schiller may hold that my denial of a *special* "problem of meaning" the solution of which can predetermine the procedure of logic is really an evasion of initial difficulties. It says only "*solvitur cogitando*." I have discussed the problem in connection with thinking which is already developed and systematic, in which a common meaning, a meaning which is social as well as personal, has already been developed and successfully established. But this is to reap where others have sown. It is to avoid the crux to which he intended to call attention. For it is to avoid giving any reckoning of the initial postulates or acts of faith which made such subsequent achievement possible. The general question of the relation of knowledge to its "postulates" is outside the scope of this symposium. And I am not sufficiently sure what the "assumption of meaning" assumes to discuss its legitimation in detail. But (a) I fully agree that the original use of signs to convey meanings was a venture of faith and a venture that must often have failed. I also agree that the conviction that when other people use words there occur in their minds cognitive processes similar to our own, is a conviction the

logical justification of which raises interesting (though hardly fundamental) problems. But, on the other hand, (b) the justification for our present conviction that there are other minds which share our meanings—*i.e.*, apprehend a world common to us all—is not to be estimated in terms of the risk involved in the original framing of such an hypothesis. Explanation is not, as such, concerned with origins. There is an obvious justification, therefore, for discussing the problem of the socialization or communication of meaning in the light of what developed thought proves itself to be. So regarded, can we hold that the problem offers a special *crux*? The assumptions involved are validated, as any other item of belief or knowledge is validated, by the fact that without them our total cognitive experience will not hold together.

V.—THE MUTUAL RELATIONS BETWEEN ETHICS AND THEOLOGY.

By J. LAIRD, H. D. OAKELEY, and A. D. LINDSAY.

I. *By J. LAIRD.*

IN attempting to open this discussion of a high matter which may easily be made too misty for anyone's profit, I must plead at the outset for an indulgence which my temerity scarcely deserves. An adequate discussion of this topic, as I apprehend, would exact from every useful participant a mature acquaintance not with Christianity only, or with the theology of some particular Christian sect, but with all the major historical religions, and would be the better of the lively imagination required of anyone who seriously asks himself whether all these religions are born to be surmounted by something finer still. I do not have this knowledge or imagination, and I wish I were more skilled in moral theory than I am.

We may agree in general. I suppose, that religion and ethics both lay claim to a man's whole life, nothing a man can control being beyond the jurisdiction of either. Consequently there is at least a logical possibility that the two might be unfriendly even if, usually, they are very amicable: and the logical possibility of this divergence extends inevitably to works as well as to faith and doctrine. As St. James told the empty man, it is folly to say "I have faith and thou hast works."

For the most part, however, we are told that there is no genuine separation. The greater religions, since they include

ethics, are as ethical as anything can be. The science of religion, on the other hand, completes the science of morals without in any way slighting or denying it.

This seems to me the simplest view, and the view best worth discussing. I cannot, however, avoid all reference to the different, more sophisticated, and (as I think) less accurate, opinion that *because* ethics requires to be, and is, completed by theology, *therefore* religion transcends and transfigures that which is ethical, and I shall consider this other opinion at the close of my paper.

According to a testimony almost unanimous, the greater religions do not *simply* accept some ethical code or standard, but endeavour *also* to lead the believer beyond mere circumstance to a certain exaltation of confidence and flavour of aspiration which quicken and illuminate the very essence of righteousness. Nevertheless, these religions do accept a particular temper and course of action as being worthy, and, if this be granted, I am disposed to ask what, except ethics, can properly judge and assess the worth of that which is accepted. If different religions are out of accord in this respect, which of them has the right to impugn the others? If they all agree, which of them can show that all are right? Ethics, so far as I can see, dare not refuse to ponder these questions, and in its ponderings may not accept the hegemony of any religion whatsoever. In certain respects, at least, we always do argue in this way from entirely ethical premisses without the least hesitation. Plato argued so when he condemned the poets for their degraded portrayal of the Olympians. We also employ it when we refuse to believe that Jehovah, being righteous, could conceivably have smitten over fifty thousand of the men of Beth-shemesh for looking into the ark. Yet, employing the argument in these instances, have we the smallest justification for limiting its application at any theological bidding?

Considerations of this sort may make us a little dubious concerning the precise sense in which theology may legitimately be said to "complete" ethics. Cursory as we have to be, however, it is reasonable to ask for a fuller analysis of this theme. How *should* the "completion" occur?

I shall consider five possible senses of this "completion." There are many others, I know, but these five are perhaps outstanding and, with a little goodwill, may suffice. The five senses are: —(1) That religion shows us the meaning of good; (2) that it shows us what is good—or that it shows us this more firmly and more clearly than unaided ethics could; (3) psychologically, that religion has an enabling potency without which it is unlikely that men would give themselves over, and sincerely, to righteousness; (4) cosmologically, that religion gives us an assurance of the fundamental congruity between ethical aspiration and the structure of the universe, thus rescuing ethics from the oppression of things despaired of and from final futility; and (5) that religion inculcates that spirit of courageous humility without which morals could be neither sweet nor sound.

(1) Concerning the first argument, the correct opinion may be that "good," being simplex, must be completely intelligible if it is understood at all: and hence either that ethics consistently misapprehends it or else that it has no need to learn (and, indeed cannot learn) from any non-ethical source. Personally, I find it hard to dissent from this opinion, but I am willing to concede the possibility that a man who knows what is meant by "pleasure is good" may learn something fresh and significant about this predicate when he comes to see that "the communion of saints is good." In this case, however, his added insight comes logically from an affirmative answer to the questions raised by the second mode of "completion."

(2) It can hardly be denied that ethics shows us *something* that is good, or that the "merest" of "mere" moralists may

perceive *something* of the excellence of love and of gratitude, or decide for himself without any theological prompting that Bruno, say, was a stauncher person than Bacon. What has to be maintained, then, is that religion lends us better eyes with which to discern these experiences, and perhaps that it enables us to divine the height to which they may climb. It might seem, indeed, that poets and artists and other persons, not essentially religious, but whose spirits are not of clay, may combine with the religions in this thing. It appears, however, that we have most to learn from the saints.

I believe this contention to be reasonable in its essence, even if it is sometimes over-stated. I believe also, however, that the point is quite general, and that it does not in any way restrict the autonomy of ethics. In a certain sense, ethics always must be the retainer to a host of other studies. Moralists who are convinced that health is good are surely permitted to believe that physicians, on the whole, are best qualified to instruct us on matters of health, and similarly every moralist has to learn from art or science or any other worthy thing. It should not surprise us, therefore, if it would be prudent for moralists to consult their priests more frequently than they commonly do. Nevertheless, these same moralists, however humbly they should go to school with physicians or artists or prophets or priests, are bound to bring a scrutiny wholly ethical upon the worth of what is taught them. To delegate this duty is for them to surrender all.

(3) The crux of this argument seems to lie in the assertion that morality in itself is, as Mause Headrigg said, "cauld and fizenless," so that, speaking broadly, decency, honour and rectitude are ineffective motives unless religion heartens and consecrates them. Here the assertion of fact seems to me very dubiously authenticated, especially when morality is conceded any reasonable measure of habituation, sentiment and authority ;

or, in the converse, when due regard is paid to the cruelty and unwisdom that have so often been allied with religion. When the argument selects lower ground, and asserts in effect that there is no point in struggling unless we know in advance that we are on the winning side, I think we may dismiss it with the reminder that the timid have a new terror here and the prudent a fresh complication. It is so difficult to know what is winning that it may even be simpler to ask what is right; and what is less perplexing is usually less perturbing. Nothing will give us an impeccable *flair* for success.

(4) It is evident that if religion really could assure us of the stable, dominant and perpetual morality of the universe—its ends being our noblest ends, and its government being necessarily and always the same as the behests and authority of our own heart and conscience—then we should have something momentous to count upon that is otherwise a thing of jeopardy and great hazard. To mention no other point, the type of contrast that shines for ever in the lines of Catullus :

Soles occidere et redire possunt ;
Nobis, cum semel occidit brevis lux,
Nox est perpetua una dormienda,

would lose its minatory quality, and although I am informed that only a prosy and despicable person attaches the least weight to the prolongation of anyone's moral existence, I assume that the stability of the moral universe does imply that, in some distilled and subtle sense, the things that are faithfully begun at some instant of time are more durable in respect to all later time than the *molex et machina mundi* itself. Without this assurance, we are told, a man can live but for the moment, or, what comes to the same thing, for something like half a generation ahead; and since nothing can be called good whose outcome may nevertheless be bad, it is plain (so the argument runs) that mere morality

may end, for all it knows, in crime, in disaster, or simply in nothing.

Of this argument I would say only that if it is taken to imply complete ethical scepticism, it defeats its own purpose, and that if it need not be taken so, its force is proportionately diminished. If we are seriously invited to conclude on these grounds that we have *no* moral knowledge, and *no* basis for reasonable conjecture concerning anything that is good or bad, then to hold that the structure of the universe is essentially congruent with morality is to say that it is essentially congruent with nothing. The very terms of this theological assurance presuppose a certain, and, indeed, a pretty high, degree of ethical knowledge.

(5) In so far as the concluding argument is to be distinguished from the third, the pith of it lies in the assertion that morality is only a human affair, whereas worship, dignity and devotion pertain only to that which is absolute. The fallacy here, I think, lies in the assumption that morality, *per se* and *in se*, is something merely human. In reality, all worth is absolute. To be sure, human ethics is concerned with worth that may be achieved *by* human beings, and (in the main, although not entirely) *for* human beings. It is absolute worth, however, that is striven for, and the privilege of humanity (such as it is) depends upon this circumstance.

Accordingly, it seems to me to be very doubtful indeed whether religion does in fact "complete" ethics, but I have now to consider the contention that, if religion did complete ethics, it would therefore transfigure it, and for brevity's sake I may perhaps be allowed to restrict my discussion to the form of argument given in the late Mr. Bosanquet's contribution to *Contemporary British Philosophy*, although this has been quoted not infrequently by others.

"Morality," he says, "lies essentially in a recognition of the 'ought-to-be' which is not (the 'sollen', the 'dover essere'),

and therefore involves an individualistic conception of perfectibility (individualistic because its whole point is the relation of the ought-to-be to the individual will) in particular finite spirits throughout a temporal progression. While religion, implying as a subordinate feature all that morality can imply of duty and self-improvement, is understood to lie essentially in a union by faith and will with a real supreme perfection in which finite imperfection, though actual, is felt to be transcended and abolished."

In this statement of the contrast, the account of morality seems to contain a crowded nest of paralogisms.

Firstly, it is not true that that which ought-to-be cannot be. No one has any business to say that no particular action ever is or ever has been as it ought to be, for many actions may have been perfect in their kind and they could not have been of any other kind. Indeed, there is no *logical* contradiction in supposing that there *was* perfection during the Golden Age or that there will be perfection at the Millennium, although both propositions are pretty certain to be false. The truth is that this argument is ruined by a mischievous equation between the "ought-to-be" and "the ideal," where "ideal" is taken to connote *both* perfection *and* futurity. That which is not-yet of course is not now. How could it be on any theory? But why should perfection involve futurity?

Secondly, it is not true that morality would be destroyed if progress, or even if perfectibility, were denied. If a cyclical view of history seemed more reasonable than a progressive one, if the truth appeared to be that there is no authentic evidence of any general improvement in the condition of things, and even if things, on the whole, seemed steadily to be growing worse, it would surely be a malevolent and empty illation to infer in consequence that honour and gratitude do not exist or are no better than their opposites. Similarly, we need not be perfectible in any ordinary sense of that misleading term, and certainly need not be so con-

stituted as to be even conceivably on the way towards becoming sinless. It is enough for moral theory if we can prevent ourselves from becoming as bad as we might become without any moral admonitions, ideas or sentiments.

Thirdly, it is not true that morality is restricted in principle to that which is finite. It applies to the finite, but it also applies to the infinite. As opposed to all doctrines of a merely analogous attribution of moral characteristics to Deity, we may consistently maintain that if the Infinite cannot be righteous in the same sense of righteousness as applies to His saints, then He does not include "all that morality implies of duty."

These reasons, accordingly, are insufficient to prove that morality must be transfigured, and if it were "transcended and abolished," I do not see how it could also be retained in a subordinate (or in any other) fashion. In arguments purporting to establish this point of view we are usually presented, in the first instance, with "the actual"; then we are told that "the actual" is not "real"; and finally are informed that what is "really actual" includes all that is "actually real" in our original "actual." This does not seem to me to make sense. All that I can see to be legitimately conveyed is that if what we take to be actual (at the first look) is subsequently shown to have been *mis*-apprehended and truly to have been other than at the first we took it to be, then (when our eyes are opened) we should properly be convinced of our early mistake. Being wiser than we were at the first look we should have come to see that what we once took to be an adequate and indeed a final description of the "actual" was really a partial and misleading account of it. This does make sense, but it also forbids us to say that evil and suffering or other such things, although they are "actual," are also at the same time "abolished." The most that could be said intelligibly in these terms would be that so long as we persist in regarding evil or suffering according to a natural and very stubborn

misapprehension of them, we are bound to find them confronting us.

In this case, however, we have to show, and not merely to assert, that ethics always is and always must be incorrigibly superficial. So far as I can see, this is precisely what has never been proved.

II. *By* H. D. OAKELEY.

THE title of the Symposium suggests inclusion of the questions both whether ethics is or should be dependent on religion, and whether the facts of the moral consciousness have any contribution to make to religious knowledge and belief. The choice of the word Theology may also imply a treatment of the problem from the typically Kantian standpoint, viz., as enquiring concerning the precise theological concepts, which ethics justifies or demands.

As Professor Laird has pointed out, it is desirable to limit the range of the discussion. And as he has confined his attention mainly to the question of the bearing upon ethics of religious conceptions, whether their influence in this sphere is legitimate, and what forms it may be presumed to take—in particular, whether religion or theology may be held to “complete ethics,” it seems best that I should begin by following his method as far as possible, and suggesting the kind of answers I should give to the questions he raises. But it will be easier to do this if I first indicate the general form in which the whole problem presents itself to me, as I feel that I envisage it from a different angle, and this difference will affect the way in which the problems considered are approached.

It is the question of ethical method which seems decisive in determining the approach. And here the all-important distinction for me is that between the explanation of ethics on the one hand on a naturalistic basis, and on the other as only intelligible on the assumption of a super-empirical meaning in human practice. A religious treatment of ethics, so far as method is concerned, would appear to have more in common with the

latter than with the former type, however unlike it might be in other respects. For in both the philosophical and the religious treatment, the significance of the practical life tends to be unlimited. It is an activity which may be looked at *sub specie aeternitatis*, which cannot assume its full value apart from our conception of the nature of things, and the position of human practice in that relation. If the world of experience be conceived as expressing some real character of the universe, this conception will obviously affect our views as to the part which intelligent activity is to play in it, whether this real nature be the good of Plato, or the creative energy of a Divine being, or in accordance with any other notion of the ultimate. In the recognition of this principle in our ethical capacity, we should not be departing from strictly ethical methods. For the individual entering upon the stage of conduct will naturally enquire what are its limits—(1) Whether the scene extends, for instance, only to the community of his neighbours in a wide sense or to some vaster community, as, *e.g.*, humanity at large, or the universe of all rational or all spiritual beings; (2) whether its laws proceed from the reason embodied in institutions and systems, which as a member of society he feels on the whole a tendency to approve, or from some wider, more permanent source of principles, the standpoint of which it is within his capacity to attain. The influence of such considerations upon ethics would not appear to be illegitimate in the sense in which Professor Laird, as I think rightly, judges any external influence on ethics to be illegitimate. It would be an influence inherent in the very nature of moral practice. For this seems essentially to be action determined by our apprehension of the highest value. And reflection upon such questions as I have indicated appears inseparable from the conditions of this apprehension, whilst it is undeniable that it may imply, or lead to the religious outlook. My general contention would, therefore, be that the

assumed division between the religious and the ethical principles and methods in their own nature is not in the end tenable. And the reason for this view is that I am unable to approach the problem except from the standpoint that a religion must have to practical ideas and life a relation identical in kind with that between a man's philosophy as his outlook or conviction in regard to the nature of things, and his practice. In this light, for the religious person his religion will be inseparable from his principles of practice, as for the philosopher his philosophy. This would be the true type of the relation. It is obvious that for most of us it often or constantly fails to be realized. But I presume we are considering the essential type. The point of view implies that our vision of good is indissolubly bound up with our conception of the ultimate nature of things. It does not by any means involve that the good is equivalent to reality, a position indeed which must, as I think, be rejected, especially on ethical grounds.

It may be objected that the interpretation outlined would only apply to the meaning of a religious ethic for some philosophers, and ignores the history of religion in its relation to ethics. There is certainly much in history to support the practical importance of Professor Laird's principle that ethics can submit to no dictation from any external source, whilst theology has not seldom appeared as such an external power. On this I can only say here that in my reading of the history of religion, it shows a continual conflict between the conceptions of the religious ideal as power and as value. Whichever of these conceptions dominates, a great effect on practice results. But all those phenomena of religiously determined practice which we now judge to have a non-moral or even anti-moral quality, follow from the predominance of the notion of power in the object of religious belief. In proportion as the principle of personality develops, and with it the ideas of moral value,

the interpretation of the religious ideal as essentially value gains ground. Its influence upon practice becomes then primarily an influence upon character, rather than on external acts and observances.

Professor Laird also conceives ethics as concerned with the realization of absolute good. But he finds it "hard to dissent" from the view that "good being simplex must be completely intelligible if undertood at all." This position, as he applies it, would seem to rule out the kind of interpretation I have suggested—viz., that if we subscribe to a doctrine of reality whether metaphysical or religious, our view of moral good will be profoundly affected by it, if indeed the very fact that we think of conduct as ethically qualified, does not (as I should also argue) involve some metaphysical or religious postulates. I am not then clear whether he would allow that, granting a religious view, it will necessarily be a factor of high importance in the determination of ethical principles, or to what extent he would regard such an influence as illegitimate. The existence of different religious views with different verdicts as to what is right, is not, it seems, a formidable difficulty. For the problem is individual, both as religious and as ethical, though the law to follow his own vision of moral value is not on that account less absolute for the individual. In this he is clearly not accepting an external hegemony. Plato's condemnation of the poets certainly follows from ethical premises, but it does this in following his own view of what is morally highest, and this should surely be regarded as his religion.

From this point of view I have some difficulty in understanding exactly what is signified by "unaided ethics," or by the contrast between this and the ethics to which religion has lent "better eyes." I should give an unqualified assent to the implication that the moral judgment unaided by the application of any religious creed need be in no wise inferior to that connected

with a religious view. But that a vitally moral attitude to life can be really independent of the individual "Weltanschauung," whether this be in the specific sense religious or not, is what I find it difficult to conceive.

With reference then to Professor Laird's fourth possible sense of the view that religion completes ethics, viz., that "religion gives us an assurance of the fundamental congruity between ethical aspiration and the structure of the universe," it appears that, assuming that such a completion is possible, it would be not less an ethical than a religious completion. It would be, in fact, one to which ethics is *ex hypothesi* driven by its intrinsic character. For the facts of ethics necessitate the attempt to relate what we distinguish as the moral quality of events in some way to the nature of the universe, or some aspect of that nature, whether or not the attempt can bring satisfaction. Kant seems to be right in his contention that the existence of the moral consciousness and its peculiar character point to some "transcendental" principle.

It will be evident that I have no difficulty in agreeing with Professor Laird's conviction that if religion makes possible a truer insight into value, this point does not in any way restrict the autonomy of ethics, though his interpretation of the independence of ethics is, I venture to suggest, at times somewhat rigid. Can we, in fact, abstract the ethical from the religious (or the metaphysical) man? Again, the criticism of the question, what is signified by a belief in the stability of the moral universe, and the relation of this belief to our moral convictions seems to involve a misinterpretation. As I understand the argument, it need not imply ethical scepticism. What we want to be assured of in this connection is not whether our moral knowledge is moral, but whether the universe is moral, whether as Martineau, I think, puts it, virtue is more than "a provincialism of this planet." If we must be agnostics on the latter point, we may still build

the soul's habitation safely "on the firm foundations of unyielding despair."* For those, on the other hand, whose eyes discern a harmony between their ethical aspirations and the spirit of the universe, there is, as history and observation appear to tell us, an added bloom in the moral way of life. After this fashion a St. Francis embraces poverty, or a Father Damien life amongst lepers, or Bruno faithfulness at all costs to his vision of truth.

To sum up what I believe to be my chief divergence from Professor Laird, it arises in connection with the question in what way good is discerned or revealed. There is an absolute obligation for the individual to follow his own judgment of worth. But what is the source of this judgment, and how is its object determined? We may ask whether duty means the consciousness of an "ought" determining our choice of action in any of the ordinary relations of life, or any of the situations, for instance, conceived by Kant in his illustrations of the categorical imperative. Or does it involve an unlimited obligation to introduce a higher value into the conditions of existence? It is where this consciousness of unlimited obligation is present in the highest degree, in the case of the examples of moral genius, or what may be called creative morality, that the moral consciousness seems most in need of transcendental postulates for its explanation. The moral genius himself may not be consciously affected by a religious or philosophical creed. It seems, however, that many, though by no means all, moral heroes would subscribe to Professor Whitehead's definition of religion.

"A religion on its doctrinal side can be defined as a system of general truths, which have the effect of transforming character when they are sincerely held and vividly apprehended."†

* "Only on the firm foundation of unyielding despair can the soul's habitation henceforth be safely built." *Philosophical Essays* (ii) *The Free Man's Worship*, Bertrand Russell.

† *Religion in the Making*, Chapter ii.

As regards the question with which Professor Laird does not explicitly deal, of the influence upon theology of the facts of ethics, I have indicated that I so far follow Kant as to hold that the reality of moral principles points to sources which take us beyond experience in the narrow sense. It appears to be the consciousness, whether explicit or not, of some contact with reality which is the ground of the profound sense of importance attaching to the effort to realize a moral ideal. Whatever interest is of supreme importance to us tends in its pursuit to assume a semi-religious colour or magnetism. It draws towards itself all our practical endeavours. But it is where the principles of personality and the relations of persons are most engaged, that this character of importance is most universally felt by the majority. Hence, its special association with the moral relations. In regard to these, those religious and philosophical systems which are most influential in the sphere of practice incline either to the emphasis of the person as of infinite value (*e.g.*, Christianity, Ethics of Kant) or to the suppression of the separate self (Buddhism, Mysticism, Neo-Hegelianism). Both types arise from the problem of the relation of individual and universal, or finite and infinite, insoluble, but of fundamental importance for ethics.

It is when Kant goes beyond his fundamental ethical insight, and attempts to found on the demands of the moral nature, unsatisfied within experience, a system of theological principles for their satisfaction beyond experience, that he offers an illustration of the inevitable failure of philosophic speculation as to the positive characters of the real, implied by the form of our practical experience. Beyond the one principle that the facts of the moral consciousness are unintelligible without the assumption of a transcendental source, it appears that the influence of "Ethics" on "Theology" must be confined mainly to negative propositions. Amongst such negative propositions I should include the rejection of any doctrine which treats the primary

distinctions of ethics, or the sphere of moral good and evil, as subordinate, and to be transmuted or transfigured by religion. I am therefore in agreement with Professor Laird in rejecting the view which follows from the metaphysic of the Absolute, as I am in the conception of moral worth as absolute in its significance. Professor Laird's examination of this position is from the point of view of his final criticism of the conception of religion as "completing ethics." But as it is in connection with the Monistic theory of the Universe, especially in Hegelian metaphysics, that the problem *for philosophy*, of the relation between ethics and religion, appears in perhaps its acutest form, we may expect to find that the question of the other side of the relation—the effect of ethics upon religion, is not less clearly raised. It is, in fact, in the nature of moral value itself that we seem to see the impossibility of a whole of value in which ethics is transfigured, whilst if the Absolute transcends all that has value for us, it could surely not be the object of religion.

I must, nevertheless, confess to a doubt whether Professor Laird's criticism of Dr. Bosanquet's position does full justice to it. Bosanquet's argument, which belongs to a line of thought maintained with extraordinary consistency in ever fresh forms throughout his writings, involves that since ethics is concerned with the relations of finite beings who, as finite, have only a low degree of reality, these relations cannot be in the light of the whole what they are from the point of view of the finite. If he denies progress, it is because of the inevitable logical results of a denial of the reality of time, and therefore of history, the necessary condition of moral activity. It seems that his argument should be attacked in its central citadel, the monistic metaphysic. It is this which necessitates the transfiguring of ethics, and if we take our stand on the absolute validity of ethical distinctions, we must reject it. As regards its results for practice, such as the denial of progress, although we may agree with

Professor Laird that morality would not be in principle destroyed if progress or even perfectibility were denied, it must surely be conceded that in practice the moral history and endeavour of humanity would almost lack its soul if such a denial were accepted in "bitter earnest," i.e. if it were applied not merely speculatively, at large in the reading of history, but in detail at close grips with social wrongs and hereditary defects. For Bosanquet, if I understand him, in so far as there is reality in finitude, there is also perfectibility, together with the ethical relations, but this reality is not final. I do not think this means that ethics is "incorrigibly superficial," a conception of it which is not in harmony with Bosanquet's ethical writings. It does, of course, mean that there is something finer than the moral order of "claims and counter-claims," some order which he regards as more ultimate. It sometimes appears that this higher sphere is at least in part determined as a finer ethical world, but at other times, as when Bosanquet denies the reality of evil,* I agree that he denies what seems essential to the moral view of practice. It seems impossible to doubt that he himself found, as others have found, a great inspiration for practice in the denial of ultimate significance to finite relations. The influence of religious ideas has always a paradoxical element. Thus the culmination of religion is that it "saves from isolation." And this is the culmination also of ethics. "Be a whole, or join a whole, you cannot be a whole unless you join a whole."† The moralist *qua* moralist may be prepared to agree with this, but ethics seems to demand that in joining a whole the individual should bring to it as his contribution the full value of his individuality. The harshness of Bosanquet's metaphysic of practice is softened by the passage into mysticism, in his little treatise, "What Religion is."

* *Suggestions in Ethics*—Reality of Evil.

† "What Religion is."

In denying the application to the "infinite," of our ethical conceptions, Bosanquet appears to me to be right. Perhaps Professor Laird's point may be met if we conceive of the highest Being as infinite in value but not in power, or any other meaning. As F. H. Bradley suggests,* such a conception need not be unfavourable to the most extreme forms of moral endeavour.

* *Essays on Truth and Reality.* (xv) On God and the Absolute.



III. *By* A. D. LINDSAY.

I FIND myself in some difficulty as to where to begin in this discussion. Professor Laird has said that it is desirable to limit its range, and has enumerated the questions which might profitably be discussed. Miss Oakeley "he charmed like a snake," and though she did not agree with Professor Laird, she accepted his way of putting the issue. I entirely agree with Miss Oakeley's criticism of Professor Laird's position as she sums it up on p. 133, and also with her difficulty in understanding what Professor Laird means by "unaided ethics." But I don't think it is possible to bring out properly the divergence of views without quarrelling with the way in which Professor Laird has put the issue. It seems to me to beg the question from the very beginning, and therefore, instead of trying to play the rôle of higher synthesis which is expected from the third paper, I must go back to the beginning of Professor Laird's paper.

It is worth noticing that, so far, hardly anything has been said about theology. The discussion has become a discussion on the nature of ethics and *religion*. The change is lopsided. The original title appears to me at least to suggest (and I think the suggestion is justifiable) that ethics and theology are comparable in that both are theories or reflective criticism—the one of conduct, the other of religious experience—and that if we substitute religion for theology, we ought to substitute conduct for ethics. Then, I imagine, we should find that conduct and religious experience were so mixed up that we should next have to ask ourselves the question whether ethics and theology were not different ways of describing or reflecting on the implications of the same thing. Then we should not accept without more ado the assumption

which puzzles me so much in Professor Laird's paper, that there are two somethings called "ethics" and "religion," which "judge," "show," "test," and "command" for themselves, whose relation has to be demarcated. I do not know and I cannot make out what this "ethics" is, about which Professor Laird has so much to say, and I cannot quite believe that it is to be met anywhere outside the pages of works and discussions on moral philosophy. My distrust of this sort of language is deepened by the way in which Professor Laird deals with his second suggestion, that religion shows us what is good. His answer is that religion and many other enquiries are thus ancillary to ethics. Religion is put on a par with medicine. Does this mean that when "ethics" tells us that "religion" is good, we go to a priest to tell us what is the best article, as we might, when "ethics" has told us that we ought to insure our lives, go to an insurance expert for advice as to what policy we should take out? Religion is surely not a technical or "economic" enquiry, and religious men are not technical experts. If we consult religious men as to what we ought to do, do we not do that simply because we assume that because of their religious experience they have a better ethical judgment than we have?

But if we give up, as surely we must, the notion of religion as an ancillary science, then it is also worth noting that Professor Laird's arguments are clearly a *reductio ad absurdum* of the position his question implies. For their general outcome is that once you assume "unaided ethics," religion has no influence and no concern with conduct at all. Professor Laird begins by assuming that "religion" and "ethics" both lay claim to a man's whole life, and yet he goes on to argue that "ethics" must be quite firm in denying religion any claim at all, except a most subordinate one, which it will not—unless it is entirely degraded—accept. If you start with an autonomous and self-sufficient "ethics" there will be no room for religion, but if you start with

an autonomous and self-sufficient religion there will be no room for ethics. "What doth the Lord require of thee, but to do justly and to love mercy and to walk humbly with thy God?" or "Pure religion and undefiled before God and the Father is this—to visit the fatherless and widows in their affliction and to keep himself unspotted from the world." If we begin like that, then ask what ethics adds to religion, we should find that the only plausible answer we could give would be that it was ancillary to religion in working out the details of mutual obligation. I think, therefore, it would be better to start again and consider the relation between ethics and theology, because nobody doubts but that these are different, and we may thereby escape from this indefinite region in which the discussion seems to be landing us.

I should like to begin by saying something about a distinction which has played a great part in the history of the relation between ethics and theology—the distinction between natural law and revelation. There is no need to repeat the oft-told tale how the Stoics worked out the principles of a law of nature, thought of as embodying those simple and immutable principles of morals which are binding on all men at all times; how this doctrine largely coalesced with the Roman conception of a *Jus Gentium*; how the Church, building on a remark of St. Paul's that the Gentiles which know not the law do *by nature* the things of the law, took over the doctrine and worked out a contrast between the moral code which was binding on all men, merely in virtue of their being men, discoverable by the operation of reason alone and obligatory at all times and in all circumstances, on the one hand, and the commands of revelation, drawing their authority from the command of God and binding on those only to whom they were revealed, on the other. That this distinction has been of great historical importance no one could deny, but it has had, I think, certain prejudicial effects

on a right understanding of the relation between ethics and theology. The view that the content of morality is to be apprehended by reason, and the view that there is an element of inspiration or revelation in moral insight, were both maintained, but maintained in different spheres; and so the sphere of natural ethics became unduly rationalistic, and the sphere of revelation became unduly mysterious and arbitrary. Alongside of this distinction between natural ethics and the ethics of revelation went a distinction between natural theology and dogmatic theology, and the distinction affected the two branches of theology in much the same way as it affected the two branches of ethics. Natural theology became an arid collection of doctrines which had no initial connection with ethics and tried by argumentation to prove conclusions which were believed for reasons quite alien to the arguments; and dogmatic theology became a science which started with certain truths regarded as divinely revealed, with the implication that the essential element in religion consisted in an assent to propositions believed to be true. One result of this development was that the distinctive contribution of Christianity to conduct was never made the object of rational reflexion. Natural ethics remained almost wholly Greek ethics; the distinctively Christian virtues found very little place in it. Any text-book on natural ethics will be found to be overwhelmingly Aristotelian.

A new development began with Reformation theology, with its new assumption of the nature of faith and its rediscovery of St. Paul. Faith was no longer regarded as the assent to certain propositions, but as an active experience, something therefore with immediate and practical consequences for conduct as even the antinomianism which was the characteristic error of this new attitude bears witness. "The principal acts of saving faith," says the Westminster "Confession" "are accepting, receiving, and resting upon Christ alone for justification,

sanctification, and eternal life." Reformation theology shifts the centre of its enquiry from the nature and attributes of God to the dealings of God with the soul, and the distinction between nature and revelation took on the very different form originally set forth by St. Paul of the distinction between law and grace. That distinction had been almost entirely overlaid by the distinction between natural ethics and revelation which had held side by side the doctrine that ethics was concerned with laws apprehended by reason (which it got from Greek thought) and the doctrine that it was concerned with laws commanded by God (which it got from Jewish thought).

I propose to examine the doctrine of the relation between law and grace, which is a theological doctrine with an obvious and almost exclusive concern with conduct, and to consider its relation to ethical theory.

It may, perhaps, be objected that to adopt this procedure is to narrow unduly the issue and to consider not the relation between ethics and theology but between ethics and a doctrine of one particular theology. Professor Laird indeed, in the beginning of his paper, suggests that the discussion should involve a knowledge of, and therefore presumably deal with, all theologies; and later on he writes as though anything said about theology should apply to all theologies. But he does not treat ethics in the same way. He takes for granted that there is a valid ethical theory, and that the erroneous theories may be disregarded. I cannot see any reason for this difference of treatment between ethics and theology. There are many erroneous forms of ethical theory and many erroneous forms of theology, and the problem of the relations of these to one another would be endless.

The problem, as it presents itself to me, can best be put by considering the relation between an ethical theory and a statement of theological doctrine which are based on the same standpoint with regard to questions of conduct. The ethical theory expounded

in Kant's "Metaphysical Foundations of Morals" and St. Paul's exposition of the relation between law and grace in Chapters VI-VIII of the Epistle to the Romans seem to me to be describing what is substantially the same experience and to contain substantially the same doctrine. Yet one is ethical theory and the other is theology. What is the difference between them?

Let us first notice where they agree, how in very different language they are describing the same facts. What Kant calls the inclinations and the heteronomous self, St. Paul calls the flesh. What Kant calls the noumenal self, St. Paul calls "the Spirit of life in Christ Jesus." When Kant says that the principle of autonomy is the supreme moral principle, he means the same thing as St. Paul means by Grace or the liberty of the Gospel. The contrast between the inclinations and the moral law in Kant obviously corresponds to the contrast between the flesh and the law in St. Paul. But, of course, the essence of Kant's moral theory is not, as is so often supposed, his account of the categorical imperative in the first part of the "Metaphysical Foundations of Morals," but his deduction of it in the third on the basis of the principle of autonomy. Kant does regard the obligation of the moral law as a problem—not as a self-evident proposition and his answer to the problem is that man is a member of two worlds, the heteronomous world of phenomena and the autonomous world of noumena, and the obligation of the moral law is that it is what man himself wills as a noumenal self, as a member of a self-legislating kingdom of ends. The world of noumena and of freedom is not brought in afterwards to offer rewards or consolations. Man's existence as a member of two worlds is implied in any and every act of moral respon-

If that is ethics, what is the difference when much the same doctrine is expressed by St. Paul theologically? I should say in the first place that St. Paul, just because he is talking about a

moral experience which is, above all, a religious experience, describes the moral facts better. He is more freed from what theology would call "the yoke of the law." There is *some* justification for that wonderful brief letter addressed to Kant by a certain Dr. Collenbusch :—

"D-Herrn Kants vernunft Glaube ist ein von aller Hofnung ganz reiner Glaube. D-Herrn Kants Moral ist eine von aller Liebe ganz reine Moral. Nun entsteht die Frage : In Welchen Stücken unterscheidet sich der Glaube der Teüfel von dem Glauben des Herrn Kants ? Und in Welchen Stücken unterscheidet sich die Moral der Teüfel und die Moral des Herrn Professor Kants ? "

It is an old story that there are two tendencies in Kant, one a rationalism which seeks to deduce moral principles from the law of contradiction, and the other which, in asserting the primacy of practical reason, is asserting the primacy of a certain kind of willing. But if we assume, as I have done above, that the second is the real Kantian doctrine, we may still ask what is actually meant by willing as a member of a kindom of ends. Then we should have to say that it cannot be done abstractedly, but only by persons who are members of a community, and that people cannot really be members of a community without caring for one another. Such mutual affection is surely as much a source of moral insight as a motive by which we are induced to perform what we otherwise know to be right. The community is, of course, concerned with working out and maintaining a system of mutual obligations, of rights and duties with which "ethics" is often taken to be especially concerned. But Aristotle was surely right in holding that such "justice" is dependent upon "friendship," and that it is from "friendship" that come new moral developments, experiment, and initiative in conduct, whose implications "justice" afterwards seeks to make explicit and to maintain. "Justice" does seem to be a matter of rational

enquiry and deduction, and if there is such a thing as "unaided ethics" it is there that we shall find it. I think we may go further and say that the qualities required for working out and elaborating a system of rights and duties, whether it be a system which the law is actually to enforce, or an account of the rights and duties which should obtain between man and man, are often very different from the qualities of the moral reformer or the prophet. And it is possible to argue that an "ethics" which was too exclusively dominated by religion would give too little account to "justice." This is, however, by the way, for as far as our main subject is concerned, once we admit, as surely we must, that there is in conduct an element which can only be described by some such words as "inspiration" or "creation" or "revelation," we can and must ask ourselves what are the conditions governing such inspiration.

St. Paul's doctrine is that the highest moral inspiration comes to men who are members of a community united in devotion to an historical person, who in his life and death furnished a perfect pattern of conduct. Leaving aside for the moment the specifically Christian aspects of this doctrine, its implication for ethical theory is that goodness implies a fundamental something which is more appropriately described in such terms as "devotion," "reverence," "worship," "faith in," than in such terms as "reason," "apprehension," "insight."

This is the main issue in any discussion of the relation between ethics and theology. For as we assent to or dissent from the implication I have just stated, we shall hold or deny that "faith," in the sense in which the word is used by St. Paul and by the author of the Epistle to the Hebrews, is an essential element in conduct, and theology is concerned with reflecting on and eliciting the implications of such faith.

It seems, secondly, to be a point of great ethical importance that the pattern or standard in conduct must be exhibited in a

person in a concrete life. An ethics which did not take saints into account would be as absurd as an æsthetics which ignored the existence of poets and great artists. Plato describes how the rulers of his city will, in fashioning it, look away to natural justice and beauty and temperance and all the other virtues, and also "take hints from that realisation of them in men which Homer has called divine and godlike"; and the figure of Socrates dominates Greek ethics as truly as the figure of Christ dominates Christian ethics. Even Kant, for all his apparent devotion to law, says in the "Critique of Judgment" that more is to be learned from the example of a good man than from all the moral rules in the world.

So far, I have been dealing with what might be described as St. Paul's ethical theory. His language is very different from that of Kant, because in much of what he says he is using the language of devotion, not of critical reflexion. But the main difference between them, that which makes St. Paul's interest primarily religious and Kant's primarily moral, and brings it about that what St. Paul says becomes the basis of theology as distinguished from ethics, is that he would hold in contradistinction from Kant that the experience he calls faith is both a practical experience and a form of knowledge, that in this moral experience the soul finds itself in contact with God, that it finds that that to which it surrenders itself in devotion furnishes the greatest and completest explanation of reality. To discuss the justification for this claim, that religious experience can be a source of truth, would be far too great a task to enter on at this stage of the discussion. All I want to affirm is that such experience is the true and the only basis of theology, and that there is therefore a sense in which ethical experience owes nothing to and can accept no dictation from theology, however much it may owe to that on which theology is based. For the experience is the primary and fundamental fact, and it may be fundamentally

the same whatever the intellectual formulation of it given by theology. And if we are to distinguish the functions of ethics and theology I should say that it is the function of ethics to formulate and make explicit the nature and conditions of good conduct, and the function of theology to work out the relations presupposed and revealed in such conduct between man and God.



VI.—SYMPOSIUM: "FACTS AND PROPOSITIONS."

By F. P. RAMSEY and G. E. MOORE.

I. *By F. P. RAMSEY.*

THE problem with which I propose to deal is the logical analysis of what may be called by any of the terms judgment, belief, or assertion. Suppose I am at this moment judging that Cæsar was murdered; then it is natural to distinguish in this fact on the one side either my mind, or my present mental state, or words or images in my mind, which we will call the mental factor or factors, and on the other side either Cæsar or Cæsar's murder, or Cæsar and murder, or the proposition Cæsar was murdered, or the fact that Cæsar was murdered, which we will call the objective factor or factors, and to suppose that the fact that I am judging that Cæsar was murdered consists in the holding of some relation or relations between these mental and objective factors. The questions that arise are in regard to the nature of the two sets of factors and of the relations between them, the fundamental distinction between these elements being hardly open to question.

Let us begin with the objective factor or factors; the simplest view is that there is one such factor only, a proposition, which may be either true or false, truth and falsity being unanalysable attributes. This was at one time the view of Mr. Russell, and in his essay, "On the Nature of Truth and Falsehood,"* he explains the reasons which led him to abandon it. These were, in brief, the incredibility of the existence of such objects as "that Cæsar died

* In *Philosophical Essays*, 1910.

in his bed," which could be described as objective falsehoods, and the mysterious nature of the difference, on this theory, between truth and falsehood. He therefore concluded, in my opinion rightly, that a judgment had no single object, but was a multiple relation of the mind or mental factors to many objects, those, namely, which we should ordinarily call constituents of the proposition judged.

There is, however, an alternative way of holding that a judgment has a single object, which it would be well to consider before we pass on. In the above-mentioned essay Mr. Russell asserts that a perception, which unlike judgment he regards as infallible, has a single object, for instance, the complex object "knife-to-left-of-book." This complex object can, I think, be identified with what many people (and Mr. Russell now) would call the *fact* that the knife is to the left of the book; we could, for instance, say that we perceived this fact. And just as, if we take any true proposition such as that Caesar did not die in his bed, we can form a corresponding phrase beginning with "the fact that" and talk about the fact that he did not die in his bed, so Mr. Russell supposed that to any true proposition there corresponded a complex object.

Mr. Russell, then, held that the object of a perception was a fact, but that in the case of judgment the possibility of error made such a view untenable, since the object of a judgment that Caesar died in his bed could not be the fact that he died in his bed, as there was no such fact. It is, however, evident that this difficulty about error could be removed by postulating for the case of judgment two different relations between the mental factors and the fact, one occurring in true judgments, the other in false. Thus, a judgment that Caesar was murdered and a judgment that Caesar was not murdered would have the same object, the fact that Caesar was murdered, but differ in respect of the relations between the mental factor and this object. Thus, in the *Analysis*

of *Mind*,* Mr. Russell speaks of beliefs as either pointing towards or pointing away from facts. It seems to me, however, that any such view either of judgment or of perception would be inadequate for a reason, which, if valid, is of great importance. Let us for simplicity take the case of perception, and assuming for the sake of argument that it is infallible, consider whether "he perceives that the knife is to the left of the book" can really assert a dual relation between a person and a fact. Suppose that I who make the assertion cannot myself see the knife and book, that the knife is really to the right of the book; but that through some mistake I suppose that it is on the left and that he perceives it to be on the left, so that I assert falsely "he perceives that the knife is to the left of the book." Then my statement, though false, is significant, and has the same meaning as it would have if it were true; this meaning cannot therefore be that there is a dual relation between the person and something (a fact) of which "that the knife is to the left of the book" is the name, because there is no such thing. The situation is the same as that with descriptions; "the King of France is wise" is not nonsense, and so "the King of France," as Mr. Russell has shown, is not a name but an incomplete symbol, and the same must be true of "the King of Italy." So also "that the knife is to the left of the book," whether it is true or false, cannot be the name of a fact.

But, it will be asked, why should it not be a description of a fact? If I say, "he perceives that the knife is to the left of the book," I mean that he perceives a fact, which is not named but described as of a certain sort, and the difficulty will disappear when my assertion is analysed according to Mr. Russell's theory of descriptions. Similarly, it will be said, "the death of Cæsar"

* P. 272. It should be observed that in the *Analysis of Mind*, a "belief" is what we call a mental factor, not the whole complex mental factors—relations—objective factors.

is a description of an event, and "the fact that Cæsar died" is only an alternative expression for "the death of Cæsar."

Such an objection is plausible but not, in my opinion, valid. The truth is that a phrase like "the death of Cæsar" can be used in two different ways; ordinarily, we use it as the description of an event, and we could say that "the death of Cæsar" and "the murder of Cæsar" were two different descriptions of the same event. But we can also use "the death of Cæsar" in a context like "he was aware of the death of Cæsar" meaning "he was aware that Cæsar had died"; here (and this is the sort of case which occurs in the discussion of cognition) we cannot regard "the death of Cæsar" as the description of an event; if it were, the whole proposition would be, "There is an event *E* of a certain sort, such that he is aware of *E*," and would be still true if we substituted another description of the same event, *e.g.*, "the murder of Cæsar." That is, if his awareness has for its object an event described by "the death of Cæsar," then, if he is aware of the death of Cæsar, he must also be aware of the murder of Cæsar, for they are identical. But, in fact, he could quite well be aware that Cæsar had died, without knowing that he had been murdered, so that his awareness must have for its object not merely an event but an event and a character also.

The connection between the event which was the death of Cæsar and the fact that Cæsar died is, in my opinion, this: "That Cæsar died" is really an existential proposition, asserting the existence of an event of a certain sort, thus resembling "Italy has a King," which asserts the existence of a man of a certain sort. The event which is of that sort is called the death of Cæsar and must no more be confused with the fact that Cæsar died, than the King of Italy should be confused with the fact that Italy has a King.

We have seen, then, that a phrase beginning "the fact that" is not a name, and also not a description; it is, therefore, neither

a name nor a description of any genuine constituent of a proposition, and so a proposition about "the fact that aRb " must be analysed into (1) the proposition aRb , (2) some further proposition about a , R , b , and other things; and an analysis of cognition in terms of relations to facts cannot be accepted as ultimate. We are driven, therefore, to Mr. Russell's conclusion that a judgment* has not one object but many, to which the mental factor is multiply related; but to leave it at that, as he did, cannot be regarded as satisfactory. There is no reason to suppose the multiple relation simple, it may, for instance, result from the combination of dual relations between parts of the mental factor and the separate objects, and it is desirable that we should try to find out more about it, and how it varies when the form of proposition believed is varied. Similarly, a theory of descriptions which contented itself with observing that "the King of France is wise" could be regarded as asserting a possibly complex multiple relation between kingship, France, and wisdom, would be miserably inferior to Mr. Russell's theory, which explains exactly what relation it is.

But before we proceed further with the analysis of judgment, it is necessary to say something about truth and falsehood, in order to show that there is really no separate problem of truth but merely a linguistic muddle. Truth and falsity are ascribed primarily to propositions. The proposition to which they are ascribed may be either explicitly given or described. Suppose first that it is explicitly given; then it is evident that "it is true that Cæsar was murdered" means no more than that Cæsar was murdered, and "it is false that Cæsar was murdered" means that Cæsar was not murdered. They are phrases which we sometimes use for emphasis or for stylistic reasons, or to indicate the position occupied by the statement in our argument. So also we can say

* And, in our view, any other form of knowledge or opinion *that* something is the case.

"it is a fact that he was murdered" or "that he was murdered is contrary to fact."

In the second case in which the proposition is described and not given explicitly, we have perhaps more of a problem, for we get statements from which we cannot in ordinary language eliminate the words "true" and "false." Thus if I say "he is always right" I mean that the propositions he asserts are always true, and there does not seem to be any way of expressing this without using the word "true." But suppose we put it thus "For all p , if he asserts p , p is true," then we see that the propositional function p is true is simply the same as p , as *e.g.* its value "Caesar was murdered is true," is the same as "Caesar was murdered." We have in English to add "is true" to give the sentence a verb, forgetting that " p " already contains a (variable) verb. This may perhaps be made clearer by supposing, for a moment, that only one form of proposition is in question, say the relational form aRb ; then "he is always right" could be expressed by "For all a, R, b , if he asserts aRb , then aRb " to which "is true" would be an obviously superfluous addition. When all forms of proposition are included the analysis is more complicated but not essentially different, and it is clear that the problem is not as to the nature of truth and falsehood, but as to the nature of judgment or assertion, for what is difficult to analyse in the above formulation is "he asserts aRb ."

It is, perhaps, also immediately obvious that if we have analysed judgment we have solved the problem of truth; for taking the mental factor in a judgment (which is often itself called a judgment), the truth or falsity of this depends only on what proposition it is that is judged, and what we have to explain is the meaning of saying that the judgment is a judgment that a has R to b , *i.e.* is true if aRb , false if not. We can, if we like, say that it is true if there exists a corresponding fact that a has R to b , but this is essentially not an analysis but a periphrasis,

for “the fact that a has R to b exists” is no different from “ a has R to b .”

In order to proceed further, we must now consider the mental factors in a belief. Their nature will depend on the sense in which we are using the ambiguous term belief: it is, for instance, possible to say that a chicken believes a certain sort of caterpillar to be poisonous, and mean by that merely that it abstains from eating such caterpillars on account of unpleasant experiences connected with them. The mental factors in such a belief would be parts of the chicken's behaviour, which are somehow related to the objective factors, viz., the kind of caterpillars and poisonousness. An exact analysis of this relation would be very difficult, but it might well be held that in regard to this kind of belief the pragmatist view was correct, *i.e.* that the relation between the chicken's behaviour and the objective factors was that the actions were such as to be useful if, and only if, the caterpillars were actually poisonous. Thus any actions for whose utility p is a necessary and sufficient condition might be called a belief that p , and so would be true if p , *i.e.* if they are useful.*

But without wishing to depreciate the importance of this kind of belief, it is not what I wish to discuss here. I prefer to deal with those beliefs which are expressed in words, or possibly images or other symbols, consciously asserted or denied; for these, in my view, are the most proper subject for logical criticism.

The mental factors of such a belief I take to be words, spoken aloud or to one's self or merely imagined, connected together and accompanied by a feeling or feelings of belief or disbelief, related to them in a way I do not propose to discuss.† I shall

* It is useful to believe aRb would mean It is useful to do things which are useful if, and only if, aRb ; which is evidently equivalent to aRb .

† I speak throughout as if the differences between belief, disbelief, and mere consideration lay in the presence or absence of “feelings”;

suppose for simplicity that the thinker with whom we are concerned uses a systematic language without irregularities and with an exact logical notation like that of *Principia Mathematica*. The primitive signs in such a language can be divided into names, logical constants, and variables. Let us begin with names; each name means an object, meaning being a dual relation between them. Evidently name, meaning, relation, and object may be really all complex, so that the fact that the name means the object is not ultimately of the dual relational form but far more complicated.* Nevertheless, just as in the study of chess, nothing is gained by discussing the atoms of which the chessmen are composed, so in the study of logic nothing is gained by entering into the ultimate analysis of names and the objects they signify. These form the elements of the thinker's beliefs, in terms of which the various logical relations of one belief to another can all be stated, and their internal constitution is immaterial.

By means of names alone the thinker can form what we may call atomic sentences, which from our formal standpoint offer no very serious problem. If a , R , and b are things which are simple in relation to his language, i.e. of the types for instances of which he has names, he will believe that aRb by having names for a , R , and b connected in his mind and accompanied by a feeling of belief. This statement is, however, too simple since the names must be united in a way appropriate to aRb rather than to bRa ; this can be explained by saying that the name of R is not the word " R ," but the relation we make between " a " and " b " by writing " aRb ." The sense in which this relation unites " a " and " b ," then determines whether it is a belief

but any other word may be substituted for "feeling" which the reader prefers, e.g. "specific quality" or "act of assertion" and "act of denial."

* This is most obvious in the case of names, which generally consist of letters, so that their complexity is evident.

that aRb or that bRa . There are various other difficulties of the same sort, but I propose to pass on to the more interesting problems which arise when we consider more complicated beliefs, which require for their expression not only names but logical constants as well, so that we have to explain the mode of significance of such words as "not" and "or."

One possible explanation* is that they, or some of them, *e.g.* "not" and "and" in terms of which the others can be defined, are the names of relations, so that the sentences in which they occur are similar to atomic ones except that the relations they assert are logical instead of material. On this view every proposition is ultimately affirmative, asserting a simple relation between simple terms, or a simple quality of a simple term. Thus, "this is not-red" asserts a relation of negation between this and redness, and "this is not not-red" another relation of negation between this, redness and the first relation of negation.

This view requires such a different attitude to logic from mine that it is difficult for me to find a common basis from which to discuss it. There are, however, one or two things I should like to say in criticism—first, that I find it very unsatisfactory to be left with no explanation of formal logic except that it is a collection of "necessary facts." The conclusion of a formal inference must, I feel, be in some sense contained in the premisses and not something new; I cannot believe that from one fact, *e.g.* that a thing is red, it should be possible to infer an infinite number of different facts, such as that it is not not-red, and that it is both red and not not-red. These, I should say, are simply the same fact expressed by other words; nor is it inevitable that there should be all these different ways of saying the same thing. We might, for instance, express negation not by inserting a word "not," but by writing

* See, especially, J. A. Chadwick, "Logical Constants," *Mind*, Jan., 1927.

what we negate upside down. Such a symbolism is only inconvenient because we are not trained to perceive complicated symmetry about a horizontal axis, and if we adopted it we should be rid of the redundant "not-not," for the result of negating the sentence " p " twice would be simply the sentence " p " itself.

It seems to me, therefore, that "not" cannot be a name (for if it were, "not-not- p " would have to be about the object not and so different in meaning from " p "), but must function in a radically different fashion. It follows that we must allow negations and disjunctions to be ultimately different from positive assertions and not merely the assertions of different but equally positive relationships. We must, therefore, abandon the idea that every proposition asserts a relation between terms, an idea that seems as difficult to discard as the older one that a proposition always asserted a predicate of a subject.

Suppose our thinker is considering a single atomic sentence, and that the progress of his meditation leads either to his believing it or his disbelieving it. These may be supposed to consist originally in two different feelings related to the atomic sentence, and in such a relation mutually exclusive; the difference between assertion and denial thus consisting in a difference of feeling and not in the absence or presence of a word like "not." Such a word will, however, be almost indispensable for purposes of communication, belief in the atomic sentence being communicated by uttering it aloud, disbelief by uttering it together with the word "not." By a sort of association this word will become part of the internal language of our thinker, and instead of feeling disbelief towards " p " he will sometimes feel belief towards "not- p ."

If this happens we can say that disbelieving " p " and believing "not- p " are equivalent occurrences, but to determine what we mean by this "equivalent" is, to my mind, the central

difficulty of the subject. The difficulty exists on any theory, but is particularly important on mine, which holds that the significance of "not" consists not in a meaning relation to an object, but in this equivalence between disbelieving " p " and believing "not- p ."

It seems to me that the equivalence between believing "not- p " and disbelieving " p " is to be defined in terms of causation, the two occurrences having in common many of their causes and many of their effects. There would be many occasions on which we should expect one or other to occur, but not know which, and whichever occurred we should expect the same kind of behaviour in consequence. To be equivalent, we may say, is to have in common certain causal properties, which I wish I could define more precisely. Clearly they are not at all simple; there is no uniform action which believing " p " will always produce. It may lead to no action at all, except in particular circumstances, so that its causal properties will only express what effects result from it when certain other conditions are fulfilled. And, again, only certain sorts of causes and effects must be admitted; for instance, we are not concerned with the factors determining, and the results determined by, the rhythm of the words.

Feeling belief towards the words "not- p " and feeling disbelief towards the words " p " have then in common certain causal properties. I propose to express this fact by saying that the two occurrences express the same attitude, the attitude of disbelieving p or believing not- p . On the other hand, feeling belief towards " p " has different causal properties and so expresses a different attitude, the attitude of believing p . It is evident that the importance of beliefs and disbeliefs lies not in their intrinsic nature but in their causal properties, i.e. their causes and more especially their effects. For why should I want to have a feeling of belief towards names " a ," " R ," and " b "

when aRb , and of disbelief when not- aRb , except because the effects of these feelings are more often satisfactory than those of the alternative ones

If then I say about someone whose language I do not know "he is believing that not- aRb ," I mean that there is occurring in his mind such a combination of a feeling and words as expresses the attitude of believing not- aRb , *i.e.*, has certain causal properties, which can *in this simple case** be specified as those belonging to the combination of a feeling of disbelief and names for a , R , and b , or, in the case of one who uses the English language, to the combination of a feeling of belief, names for a , R , and b , and an odd number of "not"s. Besides this, we can say that the causal properties are connected with a , R , and b in such a way that the only things which can have them must be composed of names for a , R , and b . (This is the doctrine that the meaning of a sentence must result from the meaning of the words in it.)

When we are dealing with one atomic proposition only, we are accustomed to leave to the theory of probability the intermediate attitudes of partial belief, and consider only the extremes of full belief and full disbelief. But when our thinker is concerned with several atomic propositions at once, the matter is more complicated, for we have to deal not only with completely definite attitudes, such as believing p and disbelieving q , but also with relatively indefinite attitudes, such as believing that either p or q is true, but not knowing which. Any such attitude can, however, be defined in terms of the truth-possibilities of atomic propositions with which it agrees and disagrees. Thus, if we have n atomic propositions, with regard to their truth and falsity

* In the more complicated cases treated below a similar specification seems to me impossible, except by reference to a particular language. There are ways in which it can apparently be done, but, I think, they are illusory.

there are 2ⁿ mutually exclusive possibilities, and a possible attitude is given by taking any set of these and saying that it is one of this set which is in fact realised, not one of the remainder. Thus, to believe p or q is to express agreement with the possibilities p true and q true, p false and q true, p true and q false, and disagreement with the remaining possibility p false and q false. To say that feeling belief towards a sentence expresses such an attitude, is to say that it has certain causal properties which vary with the attitude, i.e. with which possibilities are knocked out and which, so to speak, are still left in. Very roughly the thinker will act in disregard of the possibilities rejected, but how to explain this accurately I do not know.

In any ordinary language such an attitude can be expressed by a feeling of belief towards a complicated sentence formed out of the atomic sentences by logical conjunctions; which attitude it is, depending not on the feeling but on the form of the sentence. We can therefore say elliptically that the sentence expresses the attitude, and that the meaning of a sentence is agreement and disagreement with such and such truth-possibilities, meaning by that that one who asserts or believes the sentence so agrees and disagrees.

In most logical notations the meaning of the sentence is determined by logical operation signs that occur in it, such as "not" and "and." These mean in the following way: "not- P ," whether " P " be atomic or not, expresses agreement with the possibilities with which " P " expresses disagreement and vice versa. " P and Q " expresses agreement with such possibilities, as both " P " and " Q " express agreement with, and disagreement with all others. By these rules the meaning of any sentence constructed from atomic sentences by means of "not" and "and" is completely determined; the meaning of "not" being thus a law determining the attitude expressed by "not- P " in terms of that expressed by " P ."

This could, of course, only be used as a *definition* of "not" in a symbolism based directly on the truth-possibilities. Thus in the notation explained on page 95 of Mr. Wittgenstein's *Tractatus Logico-Philosophicus*, we could define "not- P " as the symbol obtained by interchanging the T's and blanks in the last column of " P ." Ordinarily, however, we always use a different sort of symbolism in which "not" is a primitive sign which cannot be defined without circularity; but even in this symbolism we can ask how ' "nicht" means not ' is to be analysed, and it is this question which the above remarks are intended to answer. In our ordinary symbolism the truth-possibilities are most conveniently expressed as conjunctions of atomic propositions and their negatives, and any proposition will be expressible as a disjunction of the truth-possibilities with which it agrees.

If we apply the logical operations to atomic sentences in an indiscriminate manner, we shall sometimes obtain composite sentences which express no attitude of belief. Thus " p or not- p " excludes no possibility and so expresses no attitude of belief at all. It should be regarded not as a significant sentence but as a sort of degenerate case,* and is called by Mr. Wittgenstein a *tautology*. It can be added to any other sentence without altering its meaning, for " $q : p$ or not- p " agrees with just the same possibilities as " q ." The propositions of formal logic and pure mathematics are in this sense tautologies, and that is what is meant by calling them "necessary truths."

Similarly, " p and not- p " excludes every possibility and expresses no possible attitude: it is called a *contradiction*.

In terms of these ideas we can explain what is meant by logical, mathematical, or formal inference or implication. The inference from " p " to " q " is formally guaranteed when "if p , then q " is a tautology, or when the truth-possibilities with

* In the mathematical sense in which two lines or two points form a degenerate conic.

which " p " agrees are contained among those with which " q " agrees. When this happens, it is always possible to express " p " in the form " q and r ," so that the conclusion " q " can be said to be already contained in the premiss.

Before passing on to the question of general propositions I must say something about an obvious difficulty. We supposed above that the meanings of the names in our thinker's language might be really complex, so that what was to him an atomic sentence might after translation into a more refined language appear as nothing of the sort. If this were so it might happen that some of the combinations of truth and falsity of his atomic propositions were really self-contradictory. This has actually been supposed to be the case with "blue" and "red," and Leibniz and Wittgenstein have regarded "this is both blue and red" as being really self-contradictory, the contradiction being concealed by defective analysis. Whatever may be thought of this hypothesis, it seems to me that formal logic is not concerned with it, but presupposes that all the truth-possibilities of atomic sentences are really possible, or at least treats them as being so. No one could say that the inference from "this is red" to "this is not blue" was formally guaranteed like the syllogism. If I may revert to the analogy of chess this assumption might perhaps be compared to the assumption that the chessmen are not so strongly magnetised as to render some positions on the board mechanically impossible, so that we need only consider the restrictions imposed by the rules of the game, and can disregard any others which might conceivably arise from the physical constitution of the men.

We have so far confined ourselves to atomic propositions and those derived from them by any finite number of truth-operations, and unless our account is to be hopelessly incomplete we must now say something about general propositions such as are expressed in English by means of the words "all" and "some," or in the notation of *Principia Mathematica* by apparent variables.

About these I adopt the view of Mr. Wittgenstein* that "for all x , fx " is to be regarded as equivalent to the logical product of all the values of " fx " i.e. to the combination fx_1 and fx_2 and fx_3 and . . . , and that "there is an x such that fx " is similarly their logical sum. In connection with such symbols we can distinguish first the element of generality, which comes in in specifying the truth-arguments, which are not, as before, enumerated, but determined as all values of a certain propositional function ; and, secondly, the truth-function element which is the logical product in the first case and the logical sum in the second.

What is novel about general propositions is simply the specification of the truth-arguments by a propositional function instead of by enumeration. Thus general propositions, just like molecular ones, express agreement and disagreement with the truth-possibilities of atomic propositions, but they do this in a different and more complicated way. Feeling belief towards "for all x , fx " has certain causal properties which we call its expressing agreement only with the possibility that all the values of fx are true. For a symbol to have these causal properties it is not necessary, as it was before, for it to contain names for all the objects involved combined into the appropriate atomic sentences, but by a peculiar law of psychology it is sufficient for it to be constructed in the above way by means of a propositional function.

As before, this must not be regarded as an attempt to define "all" and "some," but only as a contribution to the analysis of "I believe *that all (or some)*."

This view of general propositions has the great advantage that it enables us to extend to them Mr. Wittgenstein's account of logical inference, and his view that formal logic consists of tautologies. It is also the only view which explains how " fa " can be inferred from "for all x , fx ," and "there is an x such that

* And also, apparently, of Mr. Johnson. See his *Logic*, Part II, p. 59.

fx " from fa . The alternative theory that "there is an x such that fx " should be regarded as an atomic proposition of the form " $F(f)$ " (f has application) leaves this entirely obscure; it gives no intelligible connection between a being red and red having application, but abandoning any hope of explaining this relation is content merely to label it "necessary."

Nevertheless, I anticipate that objection will be made on the following lines: firstly, it will be said that a cannot enter into the meaning of "for all x , fx ," because I can assert this without ever having heard of a . To this I answer that this is an essential part of the utility of the symbolism of generality, that it enables us to make assertions about things we have never heard of and so have no names for. Besides, that a is involved in the meaning of "for all x , fx " can be seen from the fact that if I say "for all x , fx ," and someone replies "not- fa ," then even though I had not before heard of a , he would undoubtedly be contradicting me.

The second objection that will be made is more serious; it will be said that this view of general propositions makes what things there are in the world not, as it really is, a contingent fact, but something presupposed by logic or at best a proposition of logic. Thus it will be urged that even if I could have a list of everything in the world " a ," " b ," . . . " z ," "for all x , fx " would still not be equivalent to " $fa, fb . . . fz$," but rather to " $fa, fb . . . fz$ and $a, b . . . z$ are everything." To this Mr. Wittgenstein would reply that " $a, b . . . z$ are everything" is nonsense, and could not be written at all in his improved symbolism for identity. A proper discussion of this answer would involve the whole of his philosophy, and is, therefore, out of the question here; all that I propose to do is to retort with a *tu quoque*! The objection would evidently have no force if " $a, b . . . z$ are everything" were, as with suitable definitions I think it can be made to be, a tautology; for then

it could be left out without altering the meaning. The objectors will therefore claim that it is not a tautology, or in their terminology not a necessary proposition; and this they will presumably hold with regard to any proposition of the sort, *i.e.* they will say that to assert of a set of things that they are or are not everything cannot be either necessarily true or necessarily false. But they will, I conceive, admit that numerical identity and difference are necessary relations, that "there is an x such that fx " necessarily follows from " fa ," and that whatever follows necessarily from a necessary truth is itself necessary. If so, their position cannot be maintained; for suppose a , b , c are, in fact, not everything, but that there is another thing d . Then that d is not identical with a , b , or c is a necessary fact; therefore it is necessary that there is an x , such that x is not identical with a , b , or c , or that a , b , c are not the only things in the world. This is, therefore, even on the objector's view, a necessary and not a contingent truth.

In conclusion, I must emphasise my indebtedness to Mr. Wittgenstein, from whom my view of logic is derived. Everything that I have said is due to him, except the parts which have a pragmatist tendency,* which seem to me to be needed in order to fill up a gap in his system. But whatever may be thought of these additions of mine, and however this gap should be filled in, his conception of formal logic seems to me indubitably an enormous advance on that of any previous thinker.

My pragmatism is derived from Mr. Russell; and is, of course, very vague and undeveloped. The essence of pragmatism I take to be this, that the meaning of a sentence is to be defined by reference to the actions to which asserting it would lead, or, more vaguely still, by its possible causes and effects. Of this I feel certain, but of nothing more definite.

* And the suggestion that the notion of an atomic proposition may be relative to a language.

II. *By G. E. MOORE.*

I SHOULD like, first of all, to get as clear as possible as to what the class of entities is, with the logical analysis of which Mr. Ramsey is concerned. In his first sentence he tells us that he proposes to discuss the logical analysis of *judgment*; but in his second he goes on to give an illustration, from which it would appear that the class of entities with the logical analysis of which he really is concerned is a certain class of *facts*. He does not, by way of illustration, mention any actual member of the class in question, but only tells us that, *if* at a particular moment he were judging that Cæsar was murdered, then the fact that he was doing so *would* be a member of that class. That is to say, he only tells us that, if there *were* any fact of a certain kind, any such fact would belong to the class with which he is concerned. And the *kind* of fact, with regard to which he does tell us this can I think, be defined as follows: We all know that if, at a particular moment, Mr. Ramsey were to utter the words "I am now judging that Cæsar was murdered," he *might*, by uttering those words at that moment, be expressing a *fact*. He *would*, in any case, be expressing a *proposition*; but if, at the moment in question, he happened to be really judging that Cæsar was murdered, then, and then only, he would, by uttering these words at that moment, be *also* expressing a fact. The fact in question would be a fact, with regard to the particular moment in question, to the effect that he was at that moment judging that Cæsar was murdered. But he might, of course, actually be judging that Cæsar was murdered, at moments at which he did not utter the words "I am now judging that Cæsar was murdered"; and, in the case of any such moment, there would

be a fact, of the kind he means, which was a fact with regard to that moment, although he would not be actually expressing it in this way. Of any such fact, however, it would still be true that it was *the* fact, such that, *if* at the moment in question he *had* uttered the words "I am now judging that Cæsar was murdered," then, by uttering those words at that moment, he *would* have expressed it; or, in other words, it would be *the* fact which he *could* have expressed by uttering those words at that moment. The *kind* of fact, therefore, with regard to which he implies that, if there were any facts of that kind, they would belong to the class of entities which he is concerned to analyse, can, I think, be defined as follows: An actual fact, F, is of the kind in question, if and only if there is *some* particular moment, such that F is the only fact of which it is true that, by uttering at that moment the words "I am now judging that Cæsar was murdered," Mr. Ramsey *could* have expressed F. Obviously there may be no actual facts which are of this kind. There is a fact of this kind, if and only if there is a moment with regard to which it is true that Mr. Ramsey did judge at it that Cæsar was murdered; and there are several facts of this kind, if and only if there are several such moments.

But, supposing there were any facts of this kind, to what class would they belong? Obviously they would belong to ever so many different classes; but there can be no doubt, I think, as to which of these classes must have been *the* class of which Mr. Ramsey intended to give them as an illustration. It can, I think, be defined as follows. Consider the class of sentences consisting of the sentence "I am now judging that Cæsar was murdered," together with all other sentences which resemble it in that they begin with the words "I am now judging that," and are completed by a set of words which resemble the words "Cæsar was murdered" in that, if uttered by themselves, they would constitute a significant sentence. And next

consider the class consisting of every fact of which it is true that there are a moment, a particular individual, and a sentence of the class defined, such that, *if* that individual had uttered or were to utter at that moment the sentence in question, then, by uttering that sentence at that moment, he would have expressed or would express the fact in question. This, I think, is the required class. Put more shortly, it is the class consisting of all facts which could have been or could be expressed by the utterance, on the part of some particular individual at some particular moment, of a sentence of the form "I am now judging that *p*." Obviously Mr. Ramsey's sub-class, consisting of all facts which *he* could have expressed or could express by uttering at a particular moment the sentence "I am now judging that Caesar was murdered," would, if there were any members of this sub-class, belong to the class in question. And I think there can be no doubt that this must have been the class which he meant to indicate, if we make one, rather important, proviso. The proviso I mean is as follows: Mr. Ramsey assumes, later on (and his whole view of negation depends upon the truth of this assumption), that there are two fundamentally distinct though, in a certain sense, "equivalent," kinds of fact, the one a kind such that any fact of the kind might be expressed by using a sentence of the form "I am *disbelieving* that *p*," and the other a kind such that any fact of the kind might be expressed by using a sentence of the form "I am *believing* that *not-p*." It seems to me that this view is very likely true, though I have never been able to find any evidence that it is so which seemed to me at all cogent. And, if it is true, I think there is no doubt that Mr. Ramsey would wish to include among the objects of his analysis all facts which could be expressed by "I am *disbelieving* that *p*," just as much as those which could be expressed by "I am *believing* that *p*." And if so, then the class of facts I have just defined could only be identified with the class intended

by him, if any fact of the sort which might be expressed by "I am disbelieving that p " could *also* be properly expressed in English by "I am believing that not- p ." This may, of course, quite well be the case; even if there are the two fundamentally distinct kinds of negation which Mr. Ramsey assumes, it is quite possible that it is correct English to express the fact that *either* kind is occurring by "I am believing that not- p ." But it is only *if* this is the case that the class I have defined could be identified with the class intended by him; if it is not, then to define the class he intends, we should have to say that it is the sum of the two classes: facts which could be expressed by "I am now judging that p ," and facts which could be expressed by "I am now disbelieving that p ." As regards the latter phrase, it is, of course, not, in fact, good English; it is not good English to say, *e.g.*, "I disbelieve that Mr. Ramsey intended to analyse judgments." The way in which we actually express facts of the class which he describes by this phrase, if there are such facts at all, is by "I don't believe that p ."

The class of facts which I have just defined, and which I will hereafter refer to as my first class, seems to me to be a very definite one, and one of which there is no doubt whatever that there are members. There certainly are facts, each of which is a fact with regard to a particular individual and a particular time, such that if at the time in question the individual in question had uttered a sentence of the form "I am judging that p ," he would have expressed the fact in question. If, therefore, as he implies in his second sentence, it were facts of this class, with regard to the analysis of which Mr. Ramsey intends to make certain propositions, the question whether these propositions were true or false would be a definite one. But is it really facts of this class which he intends to analyse? There are two other classes of entities, each of which can be defined by reference to facts of this class (and, as far as I can see, in no other way), with

regard to each of which it might be suggested that it was entities of that class, and *not* of my first class, with the analysis of which he really is concerned ; and my own view is that it is one of these other classes that he really is concerned with. Both of these other classes are very apt to be confused both with my first class and with one another, and it seems to me very important to distinguish them clearly.

The first of these two classes is the class of *judgments* ; and I see no way of defining this class except as follows. Let F be a fact of my first class ; let A be the individual of whom it is true that by uttering at a certain moment a sentence of the form " I am now judging that *p* " he would have expressed F ; and let T be the moment in question. For instance, if Mr. Ramsey ever did judge that Cæsar was murdered, as he probably may have done the first time he was told so, F might be the fact which he would have expressed by uttering at that moment the words " I am now judging that Cæsar was murdered," if he had then uttered them. We so use the term " judgment " that we should say : if A really did judge at T that *p*, then there must have been an event in A's history (one and only one) which occurred at T, and which was a *judgment* that *p*. Indeed, we so use it that F is either identical with or equivalent to the fact which A might have expressed by saying at T " There is *some* event (one and only one), which is occurring now, which is an event in my history, and which is a *judgment* that *p*." And I see no way of defining what is meant by a " judgment," in that sense of the term in which every judgment is an event or occurrence, except by saying that it is an event of the sort (whatever that may be) which is such that this equivalence holds. We all understand what is meant by a sentence of the form " A judged at T that *p*," and we so use " judgment " that, in the case of every such sentence, a sentence of the form " There was an event in A's history, which occurred at T, and was a judgment that *p*,"

where A , T and p have the same values as in the original sentence, will either express the same proposition which the original sentence expressed or a proposition equivalent to it, in the sense that it both entails and is entailed by it. This, of course, does not tell us what would be the analysis of the proposition, with regard to a particular event, E , " E is a judgment"; still less does it tell us how, if at all, any particular event E , which was a judgment, could be analysed. But it does make certain points clear. It makes clear (1) that no fact of my first class *is* a judgment, since every such fact is either identical with or equivalent to some fact, with regard to a particular individual, time and proposition, to the effect that there was one and only one event in that individual's history, which occurred at that time and was a judgment that p . Clearly no such fact will itself *be* a judgment. A judgment is an event and occurs *at* a time; no such fact is an event, and none occurs *at* a time, though each is a fact *about* a time. But (2) though no fact of my first class *is* a judgment, yet to every fact of my first class there will *correspond* one and only one judgment, since every such fact is or is equivalent to a fact, with regard to a certain description, to the effect that there is one and only one judgment which satisfies that description; and hence each such fact will have to the judgment which does in fact satisfy the description, and to nothing else, the relation constituted by the double fact that *it is*, or is equivalent to, a fact, to the effect stated, *about* that description, while the judgment is the only thing to which the description in question applies. The fact and the corresponding judgment will be distinguished from and related to one another in some such way as that in which Mr. Ramsey maintained (p. 156) that the fact *that Cæsar died* is distinguished from and related to the event *Cæsar's death*. And, finally (3) (what seems to me a very important point, almost universally overlooked), although it follows that to every fact of my first class there will correspond one and only

one judgment, it by no means follows that to every judgment there will correspond *only* one fact of my first class. Suppose I am making two judgments simultaneously: *e.g.*, that I am *both* judging that *p* and also, simultaneously, that *q*, where *p* and *q* are different propositions. We shall then have two different facts of my first class. And to each there will correspond one and one only judgment: namely, to the first the event in my mental history, occurring at that time, which is a judgment that *p*, and to the second the event in my mental history, occurring at that time, which is a judgment that *q*. But there is nothing whatever in the definition of a judgment to show that these two descriptions may not both apply to the *same* event; that the very same event in my history which is a judgment that *p*, may not also be a judgment that *q*. And if this should be so, then to one and the same judgment there will correspond two different facts of my first class. It seems to me to be constantly assumed that an event which is a judgment that *p* cannot also be a judgment that *q*, but I do not know of any solid grounds for this assumption: it seems to me to rest merely upon a confusion between judgment, in the sense in which only *events* are judgments, and a certain class of *facts*. It is quite obvious that the fact that I am judging that *p* cannot be identical with the fact that I am judging that *q*, if *p* and *q* are different: but it is by no means equally obvious that the event which is my present judgment that *p* may not be identical with the event which is my present judgment that *q*. Suppose at a given moment I am judging with regard to two objects A and B, both of which I am perceiving, that A has to B the relation R. It seems to me quite obvious that the event which is my judgment that A has R to B, must also have two very different characters—the very same event must also be both a perception of A, and a perception of B. But if the same event, which is a judgment that A has R to B, is also both a perception of A and a perception of B, why should it not also

have other characters as well? Suppose I am also judging, with regard to another relation *S*, that *A* has *S* to *B*, why should not the same event which has the character of being a judgment that *A* has *R* to *B*, also have the character of being a judgment that *A* has *S* to *B*? For my part, I see no reason to think that more than *one* event ever occurs in my mental history at any one time. It is perfectly certain that there are an immense number of different *characters* of which it is true that some event having each of those characters is occurring in my mental history at a given time; but so far as I can see, it may be always one and the same event which has all these different characters. And if you say that it is not, I do not see on what principle you are to determine which among the characters in question belong to different events and which to the same.

Is it, possibly, with the analysis of *judgments*, in this sense which I have tried to explain, and *not* with that of facts of my first class, that Mr. Ramsey is concerned? He constantly speaks, of course, as if it were *judgments*, but all such expressions of his can, I think, easily be interpreted as merely a loose and abbreviated way of referring to *facts* of a certain class. And I cannot help thinking that it is not really to *judgments*, in this sense, that he means his propositions to apply at all. If it were of judgments that he is speaking, all we could say, I think, is that every single proposition which he makes about their analysis is in the last degree dubious. It is utterly doubtful, in the first place, whether judgments can be analysed at all. Even if they can, it is utterly doubtful whether they ever contain any "objective" factors; whereas he is assuming throughout that the entities, with the analysis of which he is concerned, certainly always do contain "objective" factors. And, thirdly, if he were dealing with judgments, he would be making throughout the highly doubtful assumption, of which I have just spoken, that a judgment that *p* cannot be identical with a judgment that *q*, if *p* and *q* be different.

I cannot believe that he really means to make any of these highly doubtful propositions. I think that what he implies in his second sentence so far expresses his real purpose, that it is a class of *facts* of a certain sort, each of which, though not identical with any judgment, has a certain special relation to one and only one judgment, that he really intends to analyse.

But is the class of facts in question really the one which he has indicated ? That is to say, is it my first class of facts ? I cannot believe that it is, for the following reason, among others. Every fact of my first class is, it seems to me, quite plainly a *general* fact : and, whereas Mr. Ramsey assumes throughout and expressly states to begin with that every entity, with the analysis of which he is concerned, consists *in the holding of some relation or relations between certain factors*, he would, if I understand rightly the latter part of his paper, deny that any *general* fact so consisted. Of course, it is possible that he may think that facts of my first class are *not* general facts, and that therefore they may really be capable of analysis in the way he says. But there seem to me to be many other indications that it is not really facts of this first class that he is trying to analyse : and what I want now to do is to state what seems to me to be the true alternative. I hold that what he is really trying to analyse are *neither* judgments, *nor* facts of my first class, but a second class of facts, which I will hereafter call my second class, related in a peculiar way to both ; and what I want to do is to try to make clear what this second class is.

Suppose that Mr. Ramsey were now uttering the words " I am now judging that Cæsar was murdered," and were, by uttering them now, expressing a fact : as he would be doing if and only if he were actually judging now that Cæsar was murdered. I say that the fact which he would thus express would, quite certainly, be merely a *general* fact : that it would be either identical with or equivalent to a fact, with regard to a certain description which

could only apply to a *non-general* fact, to the effect that there was one and only fact which answered to that description ; and that hence there would necessarily be one and only one non-general fact, which was *the* non-general fact corresponding to it - corresponding, in the sense, that it was *the* non-general fact answering to the description in question. I hold that, similarly, in the case of *every* fact of my first class, there is one and only one non-general fact, which is *the* non-general fact corresponding to it. I shall hereafter suggest that it is possible that, in the case of some or all of these non-general facts, there may be one or more other facts *equivalent* to each of them, in the sense that they both entail and are entailed by the fact in question. And my second class of facts consists of all those non-general facts which correspond to facts of my first class, together with all those facts (if any) which are equivalent to any such non-general fact. This I believe to be the class of entities with the analysis of which Mr. Ramsey is really concerned.

Consider what fact Mr. Ramsey would express by saying now " I am now judging that Caesar was murdered." if he expressed a fact at all. It seems to me quite plain that all he would be expressing would be a fact to the effect that he was making *some* judgment of a certain kind, *i.e.*, for this reason alone, a *general* fact. There are many different ways of judging that Caesar was murdered, and all he would be telling us would be that he was so judging *in some way or other*. There are, for instance, an immense number of different descriptions, by which we can think of Caesar : we can think of him as the author of the *De Bello Gallico* ; as the original of a certain bust in the British Museum : as the brother of the Julia who was a grandmother of Augustus, etc., etc. And anybody who was judging, with regard to any such description, which does actually apply to Caesar, that *the* person who answered to it was **murdered**, would be *ipso facto* judging that Caesar was murdered. It is surely quite plain that, if Mr. Ramsey were

judging now that Caesar was murdered, he must be judging, with regard to *some* such description, that the person who answered to it was murdered; and no less plain that by merely saying “I am now judging that Caesar was murdered,” he would *not* be expressing, with regard to the particular proposition, of this form, which he would in fact be believing, the fact that he was believing that particular proposition. All that he would be *expressing* would be the fact that he was believing *some* proposition, which was a proposition to the effect that Caesar was murdered. I do not see how this can be disputed. And this is not all: the fact which he would be expressing might be a fact which would be *general* for yet other reasons. It is, for instance, possible that, whenever one judges, one judges with some particular degree of conviction, with some particular degree of vagueness, etc., etc.: and, if so, then the fact which he would be expressing by his words would only be a fact to the effect that he was believing with *some* degree of conviction, *some* degree of clearness or vagueness, etc., *some* proposition of a certain kind: *the* fact, with regard to the particular degree of conviction, vagueness, etc., with which he would in fact be believing the proposition of the kind in question, which he was in fact believing, to the effect that he was believing it with *that* degree of conviction, vagueness, etc., would certainly not be expressed by his mere use of the words “I am now judging that Caesar was murdered.” And, finally, it is perfectly possible that the use of the word “I” may conceal yet another element of generality: indeed, on Mr. Ramsey’s own view, if I understand him rightly, it certainly would. For he holds apparently that certain instances of certain kinds of word would necessarily be related in a certain way to the “objective” factors in the fact, of the kind he wishes to analyse, which there would be if he were making the judgment now; and though, by merely saying “I am now judging that Caesar was murdered,” he might possibly be expressing the fact, with regard to the *kinds* of words in question,

that *some* instances of words of that kind were related in the necessary way to *some* "objective" factors of a certain kind, the fact, with regard to the particular instances of those kinds of words, which were in fact so related, to the effect that *those particular instances* were so related, is, it seems to me, one which he would certainly *not* be expressing. For these reasons it seems to me that every fact of my first class is, quite certainly, a *general* fact, which is, or is equivalent to, a fact, with regard to a certain description, to the effect that there is one and only one non-general fact answering to that description: and that it is only if we consider these non-general facts, each of which corresponds to one and only one fact of my first class, together with any other non-general facts which may be equivalent to any one of these, that we get the class of entities with the analysis of which Mr. Ramsey really is concerned. If his class really is some other class, I have not the least idea how it can be defined.

With regard to this second class of facts, which I have tried to define, it is, I think, worth noticing that none of them, so far as I can see, could possibly be expressed in any actual language; perhaps, even none could be expressed in any possible language. This is one characteristic which distinguishes them sharply from facts of my first class, all of which, *ex hypothesi*, could be expressed in English. And surely it is, in fact, obvious that in the case of every, or nearly every, fact which could be expressed by using words of the form "I am now judging that *p*," there always is some other unexpressed and inexpressible fact of a sort, such that what you are expressing is only the fact that there is *some* fact of that sort.

Assuming, then, that it is these inexpressible facts of my second class with the analysis of which Mr. Ramsey is really concerned, what propositions does he make about their logical analysis?

There are, first of all, two such propositions, which, if I understand him rightly, he means to assert to be “hardly open to question” in his very first paragraph. The first is (1) some proposition which might be expressed by the words “Every such fact contains at least one ‘mental’ and at least one ‘objective’ factor”: and the second, (2) some proposition which might be expressed by the words “Every such fact consists in the holding of some relation or relations between the ‘mental’ and ‘objective’ factors which it contains.”

Now I must confess I feel some doubt as to what Mr. Ramsey is here asserting. As regards (1) I think the words *can* be given a meaning such that the proposition they express really is “hardly open to question”: but I am not certain that Mr. Ramsey is really asserting this proposition and nothing more. As regards (2) I think it is not possible to give them any natural meaning such that the proposition they express would be “hardly open to question,” though I do not wish to deny that one or more of the questionable propositions they might express may *possibly* be true. I will try to explain the chief doubts and difficulties I feel with regard to them.

As regards (1) I think the following proposition really is not open to question, viz., that every fact of my second class both contains at least one “objective” factor, and also contains at least one factor which is not *merely* “objective.” And what is here meant by an “objective” factor can, I think, be defined as follows: Let *F* be a fact of my second class, and *A* be a factor contained in *F*. *A* will then be an “objective” factor of *F*, if and only if *either* (1) both (*a*) *F* entails that *A* is being believed, and also (*b*) if *F* entails with regard to any other entity, *B*, that *B* is being believed, then *B* is contained in *A*: or (2) there is some sense of the word “about,” such that *F* entails that, in that sense, something is being believed *about* *A*. To say of *A* that it fulfils the first of these conditions is equivalent to saying

of it that it is *the* proposition. *p.* which is such that, if you were to assert *F*, then *p* would *either* be the *only* proposition which, in asserting *F*, you would be asserting to be believed, *or*, if not, would contain all other propositions which you were asserting to be believed a proposition with regard to *A*, which would be usually expressed by saying that *A* is *what*, in asserting *F*, you would be asserting to be believed, *or the* "content" which you would be asserting to be believed, *or* (as Mr. Ramsey puts it, p. 154) *the* proposition which you would be asserting to be "judged." And hence, no factor which *F* contains, will be an "objective" factor which satisfies this first condition, unless *F* contains a factor which is a proposition; and *F* will not do this unless, as Mr. Johnson puts it,* propositions are "genuine entities." I understand Mr. Ramsey to be so using the term "objective" factor, that, *if* propositions are "genuine entities," then every fact of our class will contain one and only one "objective" factor which satisfies this first condition: whereas, if they are *not* (as he goes on to maintain), then the only "objective" factors contained in any fact of our class will be "objective" factors which satisfy our second condition.

But, to return to my proposition that: Every fact of my second class both contains at least one "objective" factor and also contains at least one factor which is not *merely* objective. The language used implies that *every* factor contained in such a fact may possibly be "objective," but that, if so, one at least among them must be not *merely* objective. And it seems to me that if you are to give to (1) any meaning whatever, which is really not open to question, it must be a meaning which allows this possibility which allows, therefore, that there may be some facts of this class, such that every "mental" factor of them is *also* an "objective" factor of them. To say this is to

* *Logic*, Part I, p. 126

say that one and the same factor may possibly enter into the same fact in two different ways; and it is a well-known puzzle about facts of the class we are concerned with that this does *prima facie* seem to be true of some of them. To give what I regard as the strongest instance. Suppose Mr. Ramsey really were judging now that Cæsar was murdered. Then in the fact of my second class corresponding to the fact that he was so judging, it seems to me quite clear that the present moment (or something corresponding to it) would be an “objective” factor; since it seems to me quite clear that he would be judging, with regard to or *about* this time, that an event of a certain kind took place before *it*. As a general rule, whenever we use a past tense to express a proposition, the fact that we use it is a sign that the proposition expressed is *about* the time at which we use it: so that if I say twice over “Cæsar was murdered,” the proposition which I express on each occasion is a different one — the first being a proposition with regard to the earlier of the two times at which I use the words, to the effect that Cæsar was murdered before *that* time, and the second a proposition with regard to the later of the two, to the effect that he was murdered before *that* time. So much seems to me hardly open to question. But, if so, then in the hypothetical fact with regard to Mr. Ramsey which we are considering, the time at which he was making the judgment would certainly be an “objective” factor: but also, *ex hypothesi*, the very same moment would also be a factor in this fact in another way, since it would also be the time, with regard to which the fact in question would be a fact to the effect that he was making that judgment *at* that time. I do not say that some view according to which the very same time (or something corresponding to it) would *not* be a factor in the fact in question in both of these two different ways may not possibly be *true*: but I do say that no such view can be properly described as “hardly open to question.” And

this is a doubt which would clearly affect the immense majority of facts of my second class : if, in this case, the same time would be a factor in the supposed fact in both of two different ways, then, in the immense majority of facts of this class, some one time *is* a factor in both of the two ways at once ; since (1) by definition, some time always *is* a factor in such a fact in the non-objective way ; (2) the immense majority of our judgments are judgments to the effect that something was, is, or will be the case, and (3) in all such cases the same time would (if it would be so in the case supposed) be also an " objective " factor in the fact in question. But there is another familiar doubt of the same kind, which affects a much smaller, but important, class among the facts we are considering. Suppose I were now judging that I am seeing a human being. Here it seems, *prima facie*, as if not only would the present time enter in both ways into the fact of my second class corresponding to the fact that I was making this judgment, but also as if I myself (or something corresponding to me) should enter in both ways into the fact in question : *prima facie*, I should both be an " objective " factor in the fact in question, because the judgment made would be a judgment *about* me, and should also be not *merely* an " objective " factor in it, because the fact in question would be a fact to the effect that I was making the judgment. The question whether this really is the case, involves, of course, the familiar puzzle as to what the sense is in which I can be an object to myself. And, of course, I do not say that no view, according to which, in such cases, I (or something corresponding to me) am *not* both an " objective " factor in the fact in question and also a factor in a non-objective way, is *true* ; but I do say that no such view can be properly described as " hardly open to question."

I think, therefore, that if we are to find for (1) any meaning which really is hardly open to question, it must be a meaning such that to say of a given factor, B, that it is a " mental " factor

in a fact, *F*, of the class in question, is not inconsistent with saying of *B* that it is *also* an "objective" factor in *F*, but is inconsistent with saying of *B* that it is *merely* an "objective" factor in *F*. And the meaning of "mental factor" which I suggest as sufficient for this purpose, and as also giving (so far as I can discover) the sense in which Mr. Ramsey is really using the term, is the following: Let *F* be a fact of my second class, and *B* a factor in *F*. Then *B* will be a "mental" factor in *F*, if and only if both (1) *B* is not *merely* an "objective" factor in *F* and also (2) *B* is not the time (or whatever factor in *F* corresponds to this time) *about* which *F* is a fact to the effect that a certain judgment is being made at that time.

Let us now turn to consider what proposition Mr. Ramsey can be expressing by the words (2): "Every such fact consists in the holding of some relation or relations between the 'mental' and 'objective' factors which it contains." It seems to me that any proposition which these words could properly express is questionable for both of two different reasons. (*a*) It seems to me that one of the factors, which are such that a fact of this class will always consist in the holding of some relation or relations between that factor and other factors, is always *the time* (or whatever corresponds to it) which is such that the fact in question is a fact, with regard to that time, to the effect that a certain judgment is being made *at* it: and I think it is questionable whether this factor is not sometimes neither an "objective" nor a "mental" factor. We have seen that very frequently it does seem to be an "objective" factor: but it would be rash to maintain that there are no cases in which it is not. And as for its being a "mental" factor, I have expressly defined "mental" in such a way that it will *never* be a "mental" factor. Of course, it always will be a factor which is not *merely* objective: and it might be suggested that Mr. Ramsey is using "mental" merely to mean "not merely objective": in which case I should agree that the

proposition expressed by (2) is not questionable for this first reason. I do not, however, believe that he is so using "mental." (b) It seems to me also questionable whether such a fact may not contain factors which are "objective," but which are not among the factors such that the fact *consists* in the holding of some relation or relations between those factors. I fancy Mr. Ramsey would maintain that no relational fact can contain any factors except factors which are such that the fact consists in the holding of some relation or relations between those factors; and I do not say that this view of his is not *true*, but only that it is questionable. He might, of course, so define "factor" that it would be necessarily true; but I do not think that he is actually using the term "factor" in such a way.

Having laid down these two preliminary propositions about the logical analysis of all facts of our second class, as "hardly open to question," Mr. Ramsey next goes on to express his belief in certain propositions about the "objective" factor or factors in any such fact. And I think we can distinguish three propositions of this class, in which he expresses belief, though he himself does not distinguish them. The first is (1) Every such fact contains more than one "objective" factor; the second (2) In every such fact, among the factors, which are such that the fact consists in the holding of some relation or relations between those factors, there are more "objective" factors than one; or in other words: In the case of no such fact is there any objective factor, which is the *only* objective factor which is a member of that class among the factors of the fact, which are such that the fact consists in the holding of some relation or relations between them; the third (3) In no such fact is there ever any objective factor, such that all the other objective factors of that fact are contained in it.

In the case of none of these three propositions does he, so far as I can see, offer any argument whatever in its favour. What

he does do is to mention two different views, which are such that if *either* of them were true, then (2) and (3) would be false, and with regard to which he supposes (mistakenly, I think) that, if either of them were true (1) would be false too. In the case of the first of these views, he himself offers no argument against it, but refers us to arguments which Mr. Russell has brought against it, and contents himself with telling us that he agrees with Mr. Russell's conclusion that (2) and (3) are both true. In the case of the second, he does bring arguments against it, which raise very important questions, which I shall have to discuss. But it is clear that even if these arguments were successful, they could not prove (2) and (3) in the absence of cogent arguments against the first view: and not even then, unless these two views are the *only* alternatives to (2) and (3).

I do not intend to argue these three propositions any more than Mr. Ramsey has done. With regard to (1) it seems to me unquestionably true. But with regard to (2) and (3), I doubt both these propositions, though it seems to me very likely that both are true. (2) Seems to me to raise a very important question as to whether a principle which Mr. Ramsey believes in, and to which we shall have to refer again, is true: namely, the principle: *There cannot be two different facts, each of which entails the other.* If this principle were true, then, it seems to me, if we accept (1), we should have to accept (2) also. For suppose I were now making some judgment with regard to two objects, *a* and *b*, and a relation *R*, to the effect that *a* has *R* to *b*. There must, it seems to me, in such a case, certainly be some fact of my second class which consists in the holding of some relation or relations between the three objective factors, *a*, *R*, *b*, and some not merely objective factors: and this fact could not possibly be identical with any fact which consisted in the holding of some relation or relations between the proposition *aRb* and some not merely objective factors, since the same fact cannot possibly

consist *both* in the holding of some relation or relations between *one* set of factors (a , R , b and some not merely objective factors), and *also* in the holding of some relation or relations between another different set of factors (the proposition aRb , and some not merely objective factors). There could, therefore, if Mr. Ramsey's principle were true, be no fact of my second class which consisted in the holding of some relation or relations between a proposition and some not merely objective factors. For any fact, which so consisted, would, if (1) is true, be *either* identical with or equivalent to (*i.e.*, both entailing and entailed by), some fact which consisted in the holding of some relation or relations between a *plurality* of objective factors and some not merely objective factors : and we have seen it could not be identical with any such fact, whereas, by Mr. Ramsey's principle, it could not *either* be equivalent to it. The same argument would apply to any other sort of single objective factor, with regard to which it might be suggested that some facts of our class consist in the holding of some relation or relations between one and only one objective factor of the sort and some not merely objective ones. If (1) is true, *i.e.*, if every such fact would actually contain a plurality of objective factors, it must necessarily be *either* identical with or equivalent to some fact consisting in the holding of some relation or relations between a plurality of objective factors and some not merely objective ones : and, if Mr. Ramsey's principle were true, it could be neither. *If*, therefore, Mr. Ramsey's principle were true I should say (2) must be true, but I can see no conclusive reason for thinking that his principle is true, nor any other conclusive reason for thinking that (2) is true. As for (3), I should say that it might possibly be false, even if (2) were true, the question here raised being merely the question whether a given fact may not *have* factors which do not belong to the class of factors such that it *consists* in the holding of some relation or relations between them. Thus, in our case,

it might be held that the fact which consisted in the holding of some relation or relations between a , R , b and some "mental" factors, also had for a factor the proposition, aRb : although, *ex hypothesi*, this proposition is not one of the factors, in the holding of a relation or relations between which this fact consists, and although it might also be true that there is no equivalent fact which does consist in the holding of a relation between this proposition and some not merely objective factors. As for the arguments which Mr. Russell has brought forward to show that propositions are not genuine entities, and that therefore (3), and consequently (2) also, cannot be true, it seems to me perfectly certain that neither any one of them singly, nor all of them taken together, is by any means conclusive: nor can I find any which does seem to me conclusive. I am not persuaded, therefore, that either (3) or (2) are true, though it seems to me quite likely that they are.

As for the second view, incompatible with (2) and (3), which Mr. Ramsey goes on to discuss, it seems to me perfectly certain that this view is false: but for a reason quite different from, and much simpler than, those which he gives. The view in question is as follows. Suppose S_1 were judging now that Cæsar was murdered, and S_2 were judging now that Cæsar was not murdered. There would then be two different facts of my second class, one corresponding to each of these two general facts. And what the view in question suggests is that each of these two facts of my second class has for an objective factor *the fact* that Cæsar was murdered: according to Mr. Ramsay, it even goes further than this, and suggests that this fact is the *only* objective factor in each of them, thus constituting a view which is incompatible with (1), as well as with (2) and (3). It holds, of course similarly, that wherever we have a general fact of the form "S is now judging that p ," where p is false, the fact corresponding to not- p (or some fact equivalent to it) is an objective factor in the fact of my second

class corresponding to this general fact: and that, wherever we have a general fact of the form "S is now judging that p ," where p is true, the fact corresponding to p is an objective factor in the fact of my second class corresponding to this one.

My simple objection to this view is that the fact that Cæsar was murdered could not possibly be a factor at all, either objective or otherwise, in any fact corresponding to a fact of the form "S is now judging that Cæsar was not murdered": for the simple reason that, if it were, then from the mere fact that S was making the particular judgment he was making to the effect that Cæsar was *not* murdered, it would *follow* that Cæsar *was* murdered. From any fact whatever in which the fact that Cæsar was murdered was a factor, it would, of course, follow that Cæsar *was* murdered. And nothing seems to me more certain than that from a fact from which there follows a fact of the form "S is now judging that p ," it cannot possibly follow *also* that p is false. If, as this view says, it always *did* follow, then from the fact from which I was able to infer, in a particular case, that I *was* judging that p , I should always, if p happened in fact to be false, be able to infer with certainty that p was false. The very same fact of my second class which enabled a person who was judging that Cæsar was *not* murdered, to know that he was making this judgment, would at the same time enable him to know with certainty that Cæsar *was* murdered! It seems to me that this is an absolutely conclusive *reductio ad absurdum* of the view in question: and that hence, instead of saying, as this view says, that *whenever* we have a general fact of the form "S is now judging that p ," and p happens to be false, then the fact corresponding to not- p (or some equivalent fact) is a factor in the corresponding second-class fact, we must say, not merely the contradictory, but the contrary of this — namely, that in *no* such case can the fact corresponding to not- p be a factor in the corresponding second-class fact.

With regard to the second half of what it asserts, namely, that wherever we have a general fact of the form "S is judging that *p*," and *p* is *true*, then the fact corresponding to *p* is a factor in the second-class fact corresponding to our general fact, the case is, I think, different; we are able here to assert with certainty the contradictory of this proposition, but not its contrary. This is because, if we use "judge" in the very wide sense in which philosophers often do use it, *i.e.*, a sense such that every case of *knowing* that *p* is also a case of *judging* that *p*, then there will be *some* general facts of the form "S is judging that *p*," where *p* is true, such that from the corresponding second-class fact it really does follow that *p*, namely, those in which the corresponding second-class fact is a case of *knowing*. But here, too, we are able to assert with certainty the *contradictory* of the view in question, since it is quite certain that, even where *p* is in fact true, the second-class fact which enables us to know that we are judging that *p* does not *always* enable us to know that *p*.

The discussion of this view illustrates very clearly the importance of the distinction between facts of my first class and facts of my second. If, as Mr. Ramsey implied in his second sentence, the kind of facts he was trying to analyse were really facts of my *first* class, then we should have to understand this view as asserting that the fact that Cæsar was murdered is a factor both in any general fact of the form "S is judging that Cæsar was murdered" and in any general fact of the form "S is judging that Cæsar was not murdered." And to this view we should be able to make the absolutely conclusive and general objection that from a fact of the form "S is judging that *p*," there *never* follows either *p* or not-*p*. Nothing is more certain than that we so use the word "judge" in English, that the proposition expressed by a sentence of the form "S is judging that *p*, and *p*" is never a tautology; and the proposition expressed by a sentence of the

form "S is judging that p , but not- p " is never a contradiction. This is the great distinction between the use of the words "judge" and "believe," and the use of the words "know" and "perceive" (in that sense of "perceive" in which we speak of "perceiving," not things, but *that* so and so is the case). "S knows that p , and p " or "S perceives that p , and p " do express tautologies; and "S knows that p , but not- p " or "S perceives that p , but not- p " do express contradictions. Mr. Ramsey speaks of the view that "perception is infallible," as if there were some doubt about it. I cannot see how there can be any doubt. To say that "perception is infallible" is only an awkward way of saying that any proposition of the form "S is perceiving that p " entails p . And if you are using "perceives" in any way in which it can be correctly used in English, it is perfectly certain that the proposition expressed by any sentence of the form "S is perceiving that p " *does* entail p ; every expression of the form "S is perceiving that p , but not- p " is quite certainly a contradiction in terms. Of course, this by itself tells us nothing as to the analysis of "S is perceiving that p "; for it is equally true that "S is judging *truly* that p , and p " is a tautology, and "S is judging *truly* that p , but not- p " a contradiction. The doctrine that perception is infallible is, therefore, perfectly consistent with the view that "perceives" merely means the same as "judges truly." But how anybody can doubt that perception always *is* infallible, and judgment always fallible, passes my comprehension. The first merely means "S is perceiving that p , but not- p " is *always* a contradiction; the second merely means "S is judging that p , but not- p " is *never* a contradiction. And both of these statements seem to me quite certainly true.

For these reasons it seems to me that the argument which Mr. Ramsey actually brings against this view is quite irrelevant to the analysis of judgment, since the view is, in any case, quite untenable for the reasons I have given. But his argument is,

I think, highly relevant to the subject of "facts and propositions," and, therefore, I must try to consider it. Unfortunately, it seems to me very obscure both *what* the conclusion of it is supposed to be, and how the argument is supposed to yield that conclusion. The conclusion which he seems to draw is that what Mr. Russell held to be true of judgment, *i.e.*, that (1), (2) and (3) are all true, is true not only of judgment, but also of any form of knowledge, including perception; in which case it would seem to follow that he is maintaining that *facts* are not "genuine entities" any more than propositions are. But he never expressly says so. All that he expressly says is that any analysis of the non-general fact corresponding to a fact of the form "S is perceiving that *p*," which says that it *consists* in the holding of some relation or relations between the fact corresponding to *p* and some not merely objective factors, "cannot be accepted as ultimate." If he merely means by this that (1) is true, *i.e.*, that in such a non-general fact there is always a *plurality* of objective factors—that it is *not* true that the only objective factor in it is the fact corresponding to *p*—then I should completely agree with him. If he means, further, that such a non-general fact is always *either* identical with *or* equivalent to a fact which consists in the holding of some relation or relations between a plurality of objective factors and some not merely objective factors, I should agree with him again. If he means, further still, that no such fact is either identical with or equivalent to a fact which does consist in the holding of some relation or relations between the fact corresponding to *p* and some not merely objective factors, then I feel very doubtful. And if he means, lastly, that in no such fact, nor in any fact equivalent to such a fact, is the fact corresponding to *p* a factor at all, I feel more doubtful still.

But how does he suppose his arguments to support any of these conclusions? He begins the argument by giving reasons,

which I do not dispute, for saying that phrases of the form "the fact that p " in sentences of the form "S is perceiving the fact that p " are not names. He goes on to state that, in his opinion, such phrases are not descriptions either, but in favour of this opinion he offers no argument whatever. He merely suggests that those who hold the contrary opinion may have been led to hold it by confusing that usage of the phrase, "the death of Cæsar," in which, according to him, it really is a description (a description of an *event*), with another usage—that in which it has the same meaning as the phrase "the fact that Cæsar died," this latter being a usage in which, according to him, it is *not* a description. But even if it were true that those who hold that "the fact that Cæsar died" is a description, always hold it only because of this confusion, it would still remain possible that their opinion was a true one; and, so far as I can see, he gives no ground whatever for supposing that it is *not* a true one. But, even if a phrase of the form "the fact that p " never is a description, what would follow from this? The only conclusion he directly draws is that, if such a phrase is neither a name nor a description, then such a proposition as "I know the fact that Cæsar died" must be analysed into "Cæsar died and p ," where p is a proposition in which neither the fact that Cæsar died, nor any character which belongs to that fact and that fact only, is a constituent. But does it follow that, supposing "I know that Cæsar died" also expresses a *fact*, then neither in the non-general fact corresponding to this general fact, nor in any fact equivalent to it, is the fact that Cæsar died a factor? This is the conclusion he seems ultimately to draw, and I cannot see that it follows.

I will just state briefly the only clear point I can see about all this. I do see an objection, which I imagine Mr. Ramsey would consider conclusive, to the view that expressions of the form "the fact that $a R b$ " ever are descriptions. If they ever

are, then, if " $a R b$ " does express a fact, there must be some character, ϕ , which belongs to that fact and to nothing else, which is such that the *proposition* $a R b$ is *either* identical with or equivalent to a proposition, with regard to ϕ , to the effect that one and only one thing possesses it. And it seems, at first sight, to be perfectly obvious that every proposition, without exception, is either identical with or equivalent to some proposition, with regard to a certain character, to the effect that there is one fact, and one only, which has that character; this being, I imagine, why Mr. Johnson holds that propositions *are* characters of facts;* although, of course, the mere fact that in the case of every *true* proposition, there is some character of a fact such that the proposition in question is either identical with or equivalent to a proposition to the effect that *there is a fact which has that character*, gives no justification whatever for the view that any proposition whatever, true or false, is a character of a fact. But now consider the hypothesis, with regard to the *fact* $a R b$, that there is some character ϕ , belonging to it and to nothing else, such that the *proposition* $a R b$ is either identical with or equivalent to the proposition that there is one and only one fact which has ϕ . The only *constituents* of the proposition in question are a , R , and b , none of which is identical with ϕ ; hence the proposition $a R b$, cannot be identical with the proposition "There is one and only one thing which has ϕ ." But, on Mr. Ramsey's principle, that two *different* facts or propositions cannot possibly be equivalent, there also cannot possibly be any character ϕ , such that the proposition $a R b$ is *equivalent* to the proposition "There is one and only one thing which has ϕ ." It would seem to follow, then, from this principle, that there cannot possibly be any character which belongs to the fact $a R b$ and to nothing else; and hence that there cannot be any phrase

which is a description of it. Hence, if I accepted Mr. Ramsey's principle, I should think that a phrase of the form "the fact that $a R b$ " never can be a description. But, in fact, I do not see how we can possibly do justice to the facts without supposing that there are genuinely different propositions and genuinely different facts, which nevertheless mutually entail one another. And hence, I should say that phrases of the form "the fact that $a R b$ " are descriptions. And I think that my view on this point, whether true or false, is certainly not due to confusion between the two different usages of "the death of Cæsar," which Mr. Ramsey points out. I was at one time habitually guilty of this confusion, but I discovered many years ago that it was a confusion.

Mr. Ramsey next proceeds to an excursus, which is confessedly quite irrelevant to the analysis of judgment, but which is again highly relevant to the subject of "facts and propositions." In this excursus, he says two things: (1) that "it is true that p " means no more than " p ," and (2) that there is no problem of truth, separate from the problem of the analysis of judgment; that to analyse judgment is the same thing as to solve the problem of truth; and that it is only through a "linguistic muddle" that any one holds the contrary opinion.

I cannot help dissenting from both these opinions, although Mr. Ramsey thinks their truth so obvious; and I will try to give quite clearly my reasons for dissent. Both points are very closely connected, and it will appear that the question whether I am right or he, again depends on whether his principle that there cannot be two different propositions or two different facts, each of which entails the other, is true; if it is true, then I think he must be right on this point also; but I think that what I am going to say is a good reason for supposing that principle of his to be false.

As regards (1), I admit that "it is true that p " can be properly used in such a way that it means no more than " p ." But

I hold that there is *another* usage of it, such that, in this usage, "it is true that p " always means something *different* from p , although something which is *equivalent* to it, i.e., both entails and is entailed by it. And my reasons for this can best be given by considering (2).

As regards (2), I hold that a certain particular "correspondence" theory of truth is a correct theory; that the question whether this theory is correct or not certainly forms a part of anything which could properly be called "*the* problem of truth"; but that it does not form any part of the problem of the analysis of judgment, but raises at least one quite distinct question. The particular "correspondence" theory in question is as follows: In the case of facts of my first class—facts which could be expressed by the use of a sentence of the form "I am now judging that p ," it sometimes happens that the particular p in question would also express a fact, and sometimes that it would *not*. For instance, I sometimes judge that it will be fine to-morrow, and it *is* fine the next day; but sometimes when I so judge, it is *not* fine the next day. In the first case, we should say that, in judging that p , I was judging *truly*; in the second that, in judging that p , I was judging *falsely*. Now it seems to me that, in many cases, where *both* expressions of the form "I am now judging that p " and the particular p in question *would* express facts, we notice a certain relation which holds between the first and the second of these two facts—a relation which *only* holds between facts of my first class and other facts, and which only holds between a fact of my first class and another fact, where the particular p in question does express a fact. Let us call this relation "correspondence." What I believe is, that sometimes when we say "In judging that p , I was judging *truly*," we are thinking of this particular relation, and mean by our expression: "The fact that I was judging that p , *corresponds* to some fact." And my particular "correspondence" theory of truth, is only a theory to the effect

that some of the ways in which we use "true," are such that the meaning of "true" is to be defined by reference to this particular relation which I have called "correspondence," and that *all* our usages of "true" are such that a proposition expressed by the help of that word is *equivalent* to some proposition in which this relation occurs. It is obvious that *what* "corresponds" in my sense is never itself true; only facts of my first class "correspond," and these are never true. But many usages of "true" are, I hold, to be defined by reference to this relation; and, in particular, *one* of the meanings of "It is *true* that *p*" is a meaning in which this means "If anyone were to believe that *p*, then the fact (of my first class) in question would *correspond* to a fact." To say this is, I hold, *equivalent* to saying "*p*" - each proposition entails the other; but they are not identical, since in the one the relation of correspondence is a constituent, in the other not.

Surely the question whether this particular "correspondence" theory is true or not forms a part of "the problem of truth"? And how can it form a part of the problem of the analysis of judgment? I fancy what Mr. Ramsey may have been meaning to say is that the further problem as to the *analysis* of the relation which I call "correspondence" is identical with that of the analysis of judgment. But even this, it seems to me, cannot possibly be true, although obviously the analysis of judgment will have an extremely important bearing on the other problem.

Mr. Ramsey next proceeds to consider what he calls the "mental factors" in a belief; that is to say, if my former interpretation was right, those *not merely objective* factors in facts of my second class, which cannot be identified with that particular not merely objective factor which is the *time* about which the fact in question is a fact.

And here I confess I am in a great difficulty, because he goes on to say that it is only to one particular sub-class among facts of my second class that his remarks are intended to apply, and

I cannot understand, from his language, *what* particular sub-class it is that he does intend them to apply to. He describes the sub-class in question as "beliefs which are expressed in words, or possibly images or other symbols, consciously asserted or denied." That is to say, it looks at first sight, as if he meant to confine himself to cases in which he not only judges, *e.g.*, that Cæsar was murdered, but actually *expresses* his belief, by uttering aloud, or writing down, the words "Cæsar was murdered" or other equivalent words, or by using some other physical symbols. But his "possibly images" seems inconsistent with this supposition; he cannot suppose that any belief could be *expressed*, in this sense, by the use of images. But what, then, does he mean by "expressed"?

However, he goes on to say that he takes the "mental factors of such a belief to be words spoken aloud, or to one's self, or merely imagined, connected together, and accompanied by a feeling or feelings of belief or disbelief." This looks as if he meant to say that even if the belief in question is "expressed" in images or other symbols and *not* in words, yet words are always present; but I suppose this is not what he means, but only that he is going to consider only those cases in which it is "expressed" in words, and to assume that, where, if ever, it is "expressed" in images or other symbols and *not* in words, the same will apply, *mutatis mutandis*, to the images or symbols as to the words in other cases. It looks also as if he meant to say that the feeling or feelings of belief or disbelief are *not* "mental factors," but I suppose he really means to say that they are.

He next tells us that he will "suppose for simplicity that the thinker with whom we are concerned uses a systematic language without irregularities and with an exact logical notation like that of *Principia Mathematica*." That is to say, he proposes to give up the problem of the analysis of actual beliefs altogether, and to consider only what *would* be the analysis of a certain sub-class

among facts of my second class, if the individual about whom they were facts used a language such as nobody does use. He goes on to say something about the manner in which the words which were "mental factors" in such a fact *would* be related to the objective factors in it. And I gather part of his view to be that the only objective factors in it would be factors such that for each of them, there was a "name" among the mental factors

I find it very difficult to extract from all this any definite propositions at all about actual beliefs. But I will mention three points as to which it seems to me (perhaps wrongly) that Mr. Ramsey is implying something with which I should disagree. (1) It seems to me quite doubtful whether, even if we confine ourselves to cases of belief in which the proposition believed is what Mr. Ramsey calls "expressed" in words, the words in question are always, or even ever, factors in the fact of my second class at all. I cannot see why they should not merely *accompany* the mental factors in such a fact, and not themselves *be* such factors. Any words with which I *express* a belief do seem to me to be subsequent to the belief, and not, therefore, to be factors in it. (2) An enormous number of our actual beliefs seem to me to be beliefs in which some of the objective factors are sense-data or images presented to us at the moment; and I imagine this would be the case with many even of Mr. Ramsey's sub-class, which are, in the sense he means, "expressed" in words. In the case of these objective factors it seems to me there are no words which are "names" for them or which represent them in any way, so that Mr. Ramsey's "feelings" of belief or disbelief would have to be related *directly* to these objective factors not, as he implies, only related to them by being related to words which were "names" for them or related to them in some other way. I do not see why Mr. Ramsey's individual with the ideal language should not have such beliefs: but perhaps he would reply that such beliefs would not belong to his sub-class of beliefs "expressed"

in words. (3) Even if Mr. Ramsey were right as to the last two points, there seems to me to be one very important relation between the mental and objective factors, which he has entirely omitted to mention. He speaks as if it were sufficient that his ideal individual should have belief feelings attached to words, which were in fact *names which meant* the objective factors. It would surely be necessary also, not merely that those names should *mean* those objective factors, but that he should *understand* the names.

There are two other topics in Mr. Ramsey's paper, about which I should like to say something, though I have not space to say much—namely his explanation of "the mode of significance" of the word "not," and of the words "all" and "some."

As regards the first, I am by no means convinced that Mr. Chadwick's view is not the true one; and Mr. Ramsey's ground of objection to it (for I can only find *one*, though he speaks as if there were several) does not appeal to me at all. He points out that on Mr. Chadwick's view "not-not- p " would be a *different* proposition from " p ," although, admittedly, "not-not- p " follows formally from " p ," and also " p " from "not-not- p "; and he says he "feels" that the conclusion of a formal inference must be "contained" in the premises in such a sense, that if *both* " p " is contained in "not-not- p ," and also "not-not- p " is contained in " p ," then " p " and "not-not- p " must be identical. This is the proposition to which I have referred so often before: That there cannot be two *different* propositions, which mutually entail one another. I have no feeling that it must be true, and have given a reason for dissenting from it.

Nevertheless, I am, of course, not convinced that Mr. Chadwick's view is true, and I have a "feeling" against it, to the effect that "the mode of significance" of "not" must be somehow derived from the relation of *disbelieving*. I do not trust this feeling very much, because, as I have said, I cannot find any

evidence that there are two fundamentally distinct occurrences—*disbelieving* that p and *believing* that $\text{not-}p$. But the feeling inclines me to think that some such view as Mr. Ramsey's is very likely true. The only point I should like to raise about that view is one which will perhaps show that I have misunderstood it. It seems to me that, on any view, there certainly are negative *facts*. It certainly is a fact, for instance, that King George is not at this moment in this room; or that the earth is not larger than the sun. On Mr. Ramsey's view, would it be possible to give any analysis of such facts? I should have thought it would; and that the analysis would be of some such kind as that the first fact would be the fact that, if anyone were to disbelieve that King George is in this room, then this disbelief would, under certain circumstances, produce certain consequences; that if, for instance, it were to lead to certain expectations, these expectations would be realized. If Mr. Ramsey's view would lead to the result that such a fact was to be analysed in some such way, I see no conclusive reason why it should not be true.

The other point is the "mode of significance" of "all" and "some."

In support of his view on this question, Mr. Ramsey urges, among other arguments, that it is the only view which explains (1) how "*fa*" can be inferred from "for all x , fx ," and (2) how "there is an x such that fx " can be inferred from "*fa*." And with regard to these two arguments, I want to say that the first does not seem to me a strong one, because the supposed fact, which Mr. Ramsey's view would explain, does not seem to me to be a fact. "Can be inferred from" must plainly be understood to mean "can be *formally* inferred from" or "is entailed by": and I entirely deny that *fa* is entailed by "for all x , fx ," *fa* is entailed by the conjunction "for all x , fx " and " a exists"; but I see no reason to think that "for all x , fx " *by itself* entails it. The fact, therefore, that Mr. Ramsey's view would explain, and

in fact render necessary, this supposed fact, seems to me not an argument in its favour, but against it.

But in the case of the second argument, I admit I do feel force in his contention that Mr. Chadwick's theory as to the analysis of "There is an x such that fx " gives no intelligible connection between "This is red" and "Something is red." I do not know, however, that Mr. Chadwick's theory is the only alternative to his, though I can think of no other. And I must admit that I feel a stronger objection to his than I do to Mr. Chadwick's.

Mr. Ramsey then goes on to answer supposed objections to his view.

The first objection is one which he puts in the form: "It will be said that a cannot enter into the meaning of 'for all x , fx ,' because I can assert this without ever having heard of a ." And to this he gives two answers. His first answer does not seem to me to meet the objection, since what the objection denies is *not* that, when we judge "for all x , fx ," we are making a judgment "*about* things we have never heard of and so have no names for"; obviously, in *some* sense of "about" we are. By saying that a does not *enter into the meaning of* " x , fx ," what it means is that, in judging that "for all x , fx ," we are not judging *about* a in the *same* sense as if we were judging fa —that, in short, a , b , c , d , etc., are not all of them *factors* in a fact of my second class corresponding to "I am judging that x , fx ." I must own it seems to me obvious that they are not: and this answer of Mr. Ramsey's goes no way to meet my objection. Nor does his second answer. This is that a certainly is "involved in the meaning of" "for all x , fx ," because "not- fa " is certainly inconsistent with "for all x , fx ." This answer seems to me to make two separate assumptions, both of which I should dispute. Namely (1) that if " fa " is entailed by "for all x , fx ," then " fa " must be *contained* in it. I have already said that this proposition does not appeal to me as self-evident. And (2) that, since "not- fa " is inconsistent with "for all x , fx ,"

therefore "for all x , fx " must entail " fa ." This seems to me to be a mistake because "not- fa " in the sense in which it is inconsistent with "for all x , fx ," is not the contradictory of " fa ," but equivalent to the conjunction of " a exists" with the contradictory of " fa ." All that follows, then, from the fact that "not- fa " is inconsistent with "for all x , fx ," is not that the latter entails " fa ," but, as I said before, that the latter, *together with*, " a exists," entails " fa ."

The second objection is one which Mr. Ramsey calls "more serious," and he says that he has not space to give a full answer to it. He tries, instead, to retort to it with a *tu quoque*. In this retort, however, he makes a step, of which I, at least, should deny the validity. He supposes that if the objector admits (as I should admit) that numerical difference is a *necessary relation*, he is bound also to admit that, supposing a , b , c are not everything, but there is also another thing d , then that d is not identical with a , b , or c is a *necessary fact*. But I should hold that, though numerical difference is a necessary relation, yet, in the case supposed, that d is other than a is *not* a necessary fact. For numerical difference is a *necessary relation* only in the sense that, *if* a and d both exist, then a must be other than d . But to say that " a is other than d " is a necessary fact would entail besides that " a exists" is necessary, and that " d exists" is necessary, which I should deny.

VII.—SYMPOSIUM: IS THE “FALLACY OF SIMPLE LOCATION” A FALLACY?

By L. S. STEBBING, R. B. BRAITHWAITE, and D. WRINCH.

I. *By* L. S. STEBBING.

IN this symposium we are, I understand, to consider the theory of location recently set forth in Professor Whitehead's *Science and the Modern World*. I do not think that Professor Whitehead anywhere speaks of a “fallacy of simple location.” He accuses traditional physics of the “fallacy of misplaced concreteness” and says that an instance of this fallacy is to be found in the belief that what has simple location are material things, and he denies that such things as a crimson cloud, a green leaf, an oblong table have simple location. There is material that has simple location, but this material is an abstraction of a very high degree of abstractness. It seems to me, therefore, that the question proposed for discussion is somewhat misleading and should be reformulated into a set of questions of the form: “Is the ascription of simple location to *so-and-so* a fallacy?” Pages 81–90 of *Science and the Modern World* make this quite clear. The need for brevity prevents my quoting here more than two short passages, but I assume acquaintance with the whole argument.

“To say that a bit of matter has *simple location* means that in expressing its spatio-temporal relations, it is adequate to state that it is where it is, in a definite finite region of space and throughout a definite finite duration of time, apart from any essential reference of the relations of that bit of matter to other

regions of space and to other durations of time. . . . So long as any theory of space, or of time, can give a meaning, either absolute or relative, to the idea of a definite region of space, and of a definite duration of time, the idea of simple location has a perfectly definite meaning."

He adds :

"I shall argue that among the primary elements of nature as apprehended in our immediate experience, there is no element whatever which possesses this character of simple location. . . . I hold that by a process of constructive abstraction we can arrive at abstractions which are the simply-located bits of material, and at other abstractions which are the minds included in the scientific scheme. Accordingly the real error is an example of what I have termed : 'The Fallacy of Misplaced Concreteness.'"

The theory that Whitehead is rejecting is that "space is the locus of simple locations." What is *simpliciter* in space is an abstraction. The denial of this latter assertion is, I suppose, the main contention of those who would give an affirmative answer to the question proposed in this symposium. Whitehead's assertion involves the consequence that what is relative is not necessarily subjective. The foundation of his philosophy is the conjoint assertion of three views commonly assumed to be incompatible. These are : (1) A thoroughgoing acceptance of the relativity of space-time ; (2) a rejection of all forms of the bifurcation of nature ; (3) the inclusion within the one system of nature of everything that is observed. The combination of (1) and (3) is made possible only by a rigorous adherence to (2). Hence, the explicit rejection of any theory that involves a bifurcation of nature is the starting-point of Whitehead's philosophy. I do not think that the significance of this rejection has always been clearly recognized by Professor Whitehead's critics in spite of the fact that he has himself constantly emphasized its importance. In the *Preface to The Concept of Nature* he says :

"The modern natural philosophy is shot through and through with the fallacy of bifurcation. . . . Accordingly, all its technical terms in some subtle way presuppose a misunderstanding of my thesis. It is perhaps as well to state explicitly that if the reader indulges in the facile vice of bifurcation, not a word of what I have here written will be intelligible."* What Professor Whitehead means by the bifurcation of nature is too well known to need restatement here; but it is desirable to call attention to some of the passages in which at critical stages of his argument he has emphasized the consequences of this doctrine.

"If you bifurcate Nature you sweep immediate appearance with its relationships of space and time into the realm of curious tricks of personal psychology."†

"It follows from my refusal to bifurcate nature into individual experience and external cause that we must reject the distinction between psychological time which is personal and impersonal time as it is in nature."‡

He sums up his view as follows:

"What I am here essentially protesting against is the bifurcation of Nature into two systems of reality, which, in so far as they are real, are real in different senses."§

Now, it is the basis of Whitehead's position here that once we admit—as we must—that "appearances in space and through time are personal to the observer," then the modern doctrine of relativity forces us to succumb to subjective idealism, unless at the outset we deny that what is personal, or relative to the observer, must necessarily be subjective, or unreal. It certainly is usually assumed that if anything is shown to be relative to an

* *Loc. cit.*, p. vi, and see Chapter II.

† *Aristotelian Society*: Supplem., vol. iii, p. 41.

‡ *The Principle of Relativity*, p. 66.

§ *The Concept of Nature*, p. 30. Cf. also, p. 45.

observer, or dependent upon a subject, it is thereby shown to be non-objective or unreal, and hence, is denied to be a physical fact. Thus, for instance, Mr. Russell argues that "the relativity of distances and times . . . shows that *there is no objective physical fact* which can be called "the distance between two bodies at a given time," *since the time and the distance will both depend on the observer.*"* It is the validity of this inference which, if I understand him rightly, Professor Whitehead denies. He asserts "that the actual elements perceived by our senses are *in themselves* the elements of a common world; and that this world is a complex of things, including, indeed, our acts of cognition, but transcending them."† Professor Whitehead is thus agreeing with Berkeley that the sensible is real, whilst denying the subjectivity that has commonly been supposed to follow from this admission unless one has resort to God. Hence, the frequent references to Berkeley in Professor Whitehead's writings, in spite of the fundamental difference between their theories. It is his insistence upon the reality of what is relative, which follows from the resolute refusal to admit any bifurcation of nature, that enables Whitehead to admit "the full force of Berkeley's argument" and yet to reject his conclusion.

Professor Whitehead, then, agrees with Berkeley in denying that "we observe subjects as qualified by attributes, subject and attribute being independent of ourselves."‡ He argues that "the simple proposition, the cloud is crimson," is a meaningless statement about nature unless other items of nature are implicitly included in the proposition." That is to say, that "nature as a system is presupposed in the crimsonness of the cloud." It must be noted that Whitehead is insisting not only that "crimson"

* *The ABC of Relativity*, p. 138. Italics mine.

† *Science and the Modern World*, p. 124. Cf. also *The Principle of Relativity*, p. 62 and p. 85.

‡ *Proc. Arist. Soc.*, N.S., XXII., p. 217; p. 219.

and "cloud" could not be at all unless they were in given *relations*, but also that it is just *because* they are in these relations that they are "*in themselves* the elements of a common world." There would be an absurdity here if these elements were self-contained subjects, substantives having qualities. But they are not. To establish this is to establish Whitehead's theory of events and objects. This theory cannot be elaborated here, and may be assumed to be very well known. Nevertheless, the exact nature of the relation between events and objects is, I think, sometimes misunderstood, and it must be admitted that Professor Whitehead does not always express himself clearly. But at least part of the difficulty is due to the fact that Whitehead really is making a new distinction, whereas his critics frequently assume that he is merely employing a new terminology.* Since the theory of location is a result of the theory of events, it is necessary to dwell a little on this distinction.

The ordinary view is that events happen to objects, or things, having spatial situation; hence whenever an event occurs there must be a substantive object *to which* it happens.

Whitehead's view makes the event substantive and the object a character of the event. An example may make this point clearer. This table at which we are sitting is in its present spatio-temporal situation because of various other events, for example, the occurrence of this Conference. It has chairs beside it because we want to sit down, and they would not be here were no meeting being held in this hall. But what we mean by "the table" is something irrelevant to its spatio-temporal happenings, and it would be recognizably the same were it in Cambridge. The phrase "what we mean by 'the table'" may be regarded as ambiguous. I want to explain what I understand by it. The intrinsic character of a table, what makes it a table and not a

* See, e.g. R. B. Braithwaite in *Mind*, N.S., 140, p. 494.

chair, and so on, is in no way affected by, or dependent upon, its situation in the events within which it occurs. This is, I think, the meaning of Whitehead's statement that objects are extrinsic to events and that the table is an object. But its presence is *not* extrinsic; it is not independent of its situation and its situation is complex, involving a set of interrelated events. Hence there is a fundamental distinction between object and event; *qua object* the table's occurrence is irrelevant to its intrinsic character; but the event is essentially related to other events, so that it is "just where it is and how it is,"* and could not be at all apart from this definite set of relationships.

It may be thought that there is general agreement with regard to the distinction between "event" and "object," and disagreement only about the terms to be used. But I do not think that this is in fact the case. Everyone will agree that we must distinguish between a spatio-temporal situation, or an occurrence, and the material object which *has* the situation. But this agreement may conceal a fundamental difference, and it is my belief that this is the case with regard to Whitehead and his critics. The latter assume that "the table" at which we are sitting is a substantive object which is simply located in a given region of space (or of space-time), and that the relation of "the table" to its spatio-temporal situation is indisputably "external." It would further be commonly assumed that "time makes no difference" to the substantive, viz. the *object*. Whitehead's contention is that time is essentially involved in the substantive, viz. the *event*, and the object is an abstraction. The contrast might be put in this way. The ordinary view makes substantive objects fundamental, and treats events as properties of objects. Whitehead's view makes substantive events fundamental, and treats objects as characters of events. This is, I think, the

* *Science and the Modern World*, p. 174.

meaning of the phrase "the ether of events." A passage in *The Principles of Natural Knowledge* brings out so clearly the point I am here concerned to make, that I shall quote it almost in full :—
 . . . "the ultimate facts contemplated by Maxwell's equations are certain events which are occurring throughout all space. The material called ether is merely the outcome of a metaphysical craving. The continuity of nature is the continuity of events ; and the doctrine of transmission should be construed as a doctrine of the coextensiveness of events with space and time and of their reciprocal interaction. . . . We shall term the traditional ether an 'ether of material' or a 'material ether,' and shall employ the term 'ether of events' to express the assumption of this enquiry, which may be loosely stated as being 'that something is going on everywhere and always.' . . . Time, Space, and Material are adjuncts of events."*

According to this view there is no substantive object, the "material ether," but there is an ether of events. Hence, on this view no "substantive to the verb 'to undulate' " is required ; but there is a "going on always and everywhere." It follows that the relatedness of events is fundamental, so that the relations of an event are internal "so far as concerns that event" ; further, we see "the reason why an event can be found only just where it is and how it is—that is to say, in just one definite set of relationships. For each relationship enters into the essence of the event ; so that, apart from that relationship, the event would not be itself." †

The understanding of this passage is of the utmost importance for the understanding of the "fallacy of misplaced concreteness," hence for the discussion of the topic of this symposium. I shall consequently discuss it in some detail, and shall then discuss

* *The Principles of Natural Knowledge*, p. 25.

† *Science and the Modern World*, p. 174.

an important statement which occurs in the same paragraph, but which I deliberately refrained from quoting just now.

The view that Whitehead here explicitly rejects is the view that "spatio-temporal relationships are external." The conception of spatio-temporal relations as external clearly depends upon the notion of self-contained substantive objects which can be simply *at* a given place and *at* a given time. *i.e.*, it involves the notion of the simple location of these objects. This point must be emphasized. The notion of "simple location" can be made precise only in so far as there are substantive objects which have no *essential* relations to space and time. Whitehead had already pointed this out in the following passage, which is of such great significance in this connection that I must again quote at length :

"The false idea which we have to get rid of is that of nature as a mere aggregate of independent entities, each capable of isolation. According to this conception, these entities whose characters are capable of isolated definition come together and by their accidental relations form the system of nature. . . .

"With this theory space might be without time, and time might be without space. The theory admittedly breaks down when we come to the relations of matter and space. The relational theory of space is an admission that we cannot know space without matter or matter without space. But the seclusion of both from time is still jealously guarded. The relations between portions of matter in space are accidental facts owing to the absence of any coherent account of how space springs from matter or how matter springs from space. Also what we really observe in nature, its colours and its sounds and its touches, are secondary qualities ; in other words, they are not in nature at all, but are accidental products of the relations between nature and mind.

"The explanation of nature which I urge as an alternative ideal to this accidental view of nature, is that nothing in nature could be what it is except as an ingredient in nature as it is. . . . An isolated event is not an event, because every event is a factor in a larger whole, and is significant of that whole."*

The essential relatedness of events is here clearly asserted, and the system of related events is said to be the system of nature. We have already seen that "crimson" and "cloud" are elements of a common world because they are in relations. But "crimson" and "cloud" are what Whitehead calls "objects"; hence these objects are within nature. We must be careful at this point not to allow the "facile vice of bifurcation" to mislead us. If events and objects were simply bifurcated, Whitehead would be simply substituting one fallacious theory for another of the same type. Whitehead, however, does not make this mistake; his critics commonly do, owing to the fact that they tend to treat the "object" as a Platonic *εἶδος*, making it merely another kind of substantive. Whitehead's treatment of "abstraction" should prevent this mistake. But his exposition is extremely unclear, and he has given ground for serious confusion in two ways: (1) By an unfortunate lapse of terminology; (2) by what I venture to think is a wholly misleading reference to Leibniz. I will deal with these two points separately; the first raises the question of internal relations; the second concerns the theory of prehension, and hence involves the consideration of simple location.

(1) In spite of the care with which, in the *James-Scott Lecture*, Professor Whitehead avoided current terminology, in his latest exposition of his theory he has adopted the terms "internal" and "external" as applied to relations. This is to be regretted. As Professor Whitehead pointed out--"a different philosophic

* *The Concept of Nature*, pp. 141-142.

outlook radically affects all meanings,"* and these terms have been much used in connexion with a fundamentally different type of theory.

At one time Mr. Russell, who, I believe, gave these phrases currency—based his "realism" upon "external relations"† and argued that the "axiom of internal relations" is equivalent to the assumption that every proposition has one subject and one predicate.‡

Professor Moore has given an analysis of what is meant by "internal relations," which is, from this point of view, quite final.§ But the analysis and the criticism do not seem to me *relevant* to what Professor Whitehead has to say with reference to events and objects as he conceives them. This being so, it seems to me a mistake to translate Whitehead's very obscure language as though this analysis were relevant. Yet it is inevitable that this should be done, seeing that not only is it extremely difficult to find out what Professor Whitehead does mean, but the problem is further complicated by his use of unsuitable expressions. In attempting, therefore, to explain how, as it seems to me, these difficult statements should be interpreted, I am merely attempting to formulate a view which is, in my opinion, both true and consistent with Professor Whitehead's *Naturphilosophie* as developed in his earlier writings. It may well be *not* an interpretation of anything that Professor Whitehead has meant to say. In that case I would suggest that it might still be a theory that is true and consistent with what some of us believe we have learnt from Professor Whitehead.

* *The Principle of Relativity*, p. 23.

† *The Journal of Philosophy*, vol. viii, 1911.

‡ *Philosophical Essays*, p. 164.

§ *Philosophical Studies*, Ch. IX. The ambiguity of these terms and the variety of different contexts in which they have been used make any short treatment of this topic impossible.

This is the most that I wish to claim. We are not likely ever to know exactly what he *means*.

The relation of object to event * is "external" in a quite precise sense, *viz.* that its situation in that event in its spatio-temporal position is quite irrelevant to what the object essentially is. This is, I believe, the meaning of the statement that the "eternal object" is *abstract*; by "abstract" is meant that "what an eternal object is in itself—that is to say, its essence—is comprehensible without reference to some one particular occasion of experience."† The object is said to "transcend" the occasion; but this transcendence or abstraction does not involve disconnection from the occasion; on the contrary, each object has its special mode of connection with the occasion, and thus has reference to occurrence, or spatio-temporal happening. But it is not confined to a given event. Hence an object is "timeless" in the same sense, and in that sense only, in which a space can be timeless, *viz.* "because its points have no special relation to any one moment of its associated time-system."‡ The externality is an externality to the particular occasion which is the situation of the object.§ Just as the "timeless space" must be associated with some time system, so the object must be associated with some event; there are no objects apart from events. But the object is in no sense constituted by its relations

* In what follows I shall use "object" and "event" in the sense given to those words by Professor Whitehead. His recent introduction of the adjective "eternal" to qualify "object" seems to me unfortunate; it is again likely to mislead, and has no special significance.

† *Science and the Modern World*, p. 221.

‡ *The Principles of Natural Knowledge*, p. 130.

§ If at this stage we reintroduce the notion of the object as a substantive object, or as a Platonic *εἶδος*, or as anything but an abstraction, we shall fall into absurdity. The meaning usually given by Mr. Russell and English realists generally to "internal" and "external" is likely to encourage this mistake. The opposition is between the *essential* and the *contingent*.

to events ; it is what it is independently of events which *qua* events are characterless. Since an object is exactly what it is, its relations to other objects are necessary relations ; contingency has no meaning apart from events. This is, I think, Whitehead's meaning in the two obscure paragraphs on p. 223. A complete muddle results from the introduction of "internal" relations, for Whitehead has apparently been influenced by the way in which this term has been used, and is thus misled by his own language into contradicting himself, as, for instance, in the statement "an entity which stands in internal relations has no being as an entity not in these relations"—a statement that is made here with reference to eternal objects which are elsewhere said *not* to require a reference to other objects. His discussion of this topic is so obscure that it is extremely probable that what I am about to say may misrepresent his views. Since, however, his statements are not only obscure, but also apparently inconsistent, it may be worth while to try to state what are the characteristics which may be here indicated by the terms "internal" and "external."*

There is an important distinction between the relation of events to each other and the relation of objects to each other, and again, between the relation of events to objects and of objects to events. The first distinction might be expressed in terms of actuality and possibility, though these words are unfortunately ambiguous. Whatever is actual is an event, and thus what is actual *could* not be otherwise. Hence, any two events, e' and e'' , *must* be related in the way in which they in fact are related. As Whitehead originally put it : "An event is what it is, when it is, and where it is." This characteristic of events might be described

* It is probable that what follows is not consistent with much that Prof. Whitehead seems concerned to maintain. I am, however, endeavouring to consider the problem of simple location as suggested by him ; I am not primarily concerned to accept his views as a whole.

as a certain "fixedness of relations"; it is misdescribed as an "internal relation." Objects, on the other hand, have no element of actuality; they are possible. An object may be situated in an event, but this situation is not essential to the object. Hence, the object has no "necessary" relation to any given event. This lack of "fixedness of relation" is misdescribed as "external."

Two objects, A and B, have quite a different kind of relation. The notion of contingency is here quite inapplicable. Nor is A what it is because of its relation to B; but seeing that A is what it is, and *its* characteristics are fixed, it has to B, which is also of fixed character, an unalterable relation of some kind or other. This relation is not the relation of "entailing"; it is merely the relation of contrast, or of similarity, or of such and such a grade, that must hold between simple terms. Some objects will entail others, but this is not a relation that holds between all objects.*

While the spatio-temporal occurrence of the object is irrelevant to the object, spatio-temporal occurrence is all that there is for events. Events are characterless apart from their relations to each other and to the objects which are their characters. Hence, the determinateness of an event is dependent upon two factors: (1) the complex of events within which it occurs; (2) the presence of an object in that event. But an event is what it is by virtue of its context, *i.e.* by virtue of the objects ingredient in its neighbourhood. No character belongs to an event simply; it belongs to that event in its relations. Here we need to remember that this whole doctrine is based upon the view that what is relative is nevertheless and *as relative* a factor in what is real. This is surely the meaning of Whitehead's statement that "'Significance' is the relatedness of things. . . .

* I do not think that the problem of "entailing" is in any special way connected with the theory of objects.

The so-called properties of things can always be expressed as their relatedness to other things unspecified, and natural knowledge is exclusively concerned with relatedness.* That is to say, nature is not a group of self-contained substantives.

(2) In expounding his theory of the relatedness of events, Whitehead most unfortunately resorts to Leibniz in order to explain the notion of "prehension" or "perspectives." This comparison with Leibniz' monads and the adoption of the metaphor of mirroring are misleading in the extreme. That Professor Whitehead has failed to see this suggests that either he has not worked out the implications of his theory or that he is not fully aware of the suggestions conveyed by Leibniz' monadism. Whatever Leibniz' monads may be, they are certainly not *events*; indeed, it seems to me that the monads are "objects" regarded as substantives—a monad is a collection of predicates somehow predicated of itself, and containing in itself all that can be asserted of it. Hence, the monad cannot stand in relations, so that Leibniz rightly concluded that on his view relations, including space and time, are unreal. Monads so conceived are necessarily "windowless," for their nature is such that there can be no interaction.† Whitehead's theory of events is, on the contrary, based upon the fact of interaction, the reality of relatedness. The notion of a perspective, or a prehension follows from this relatedness. The reference to Leibniz and the adoption of his phraseology is thus peculiarly inappropriate. Moreover, Leibniz' phrase "points of view" must be interpreted with reference to *predicates*. But the prehension of events has nothing to do with predicates; the "aspects" are not aspects of *objects*, but interconnections of events.‡

* *The Principles of Natural Knowledge*, p. 12.

† See Russell. *Philosophy of Leibniz*, Chapter I.

‡ Professor Whitehead seems to be partially aware that the differences between Leibniz and himself are quite fundamental (see *op. cit.*, pp. 216-17);

This resort to Leibniz is only too likely to encourage the misunderstanding that somewhere or other Professor Whitehead must mean to bring in "things." Thus, Mr. Braithwaite suggests that possibly Whitehead is reverting to a view which would regard, for example, a table, as a particular, and he says: "In this case the relation between his enduring objects and his events would be something similar to that between the continuants and occurrents of Mr. W. E. Johnson."* This suggestion seems to me mistaken. Its plausibility depends upon the surreptitious introduction of the notion of a "thing," which Whitehead has taken some trouble to exclude. I do not want to deny that in *The Principles of Natural Knowledge* Whitehead certainly thought of a table as an object wholly divorced from an event, and he conceived the "perceptual object" as a "collection of sense-objects." But he has gradually come to abandon this view, which was, in fact, due to his previous acceptance of Mr. Russell's "class-theory" of sense-data. Professor Whitehead has thus corrected his initial failure to grasp the full significance of his own theory, viz. the inversion of the relation of object to event. This change in his view is quite clearly stated in *Note II.* to the second edition of *The Principles*. This *Note* explains both that the statement "objects are only derivatively in space and time" is to be interpreted as I have suggested, viz. as meaning that spatio-temporal occurrence is irrelevant to what an object *is*; and also that "natural objects require space and time," since sense-objects, physical objects, etc., really are factors in the relations that constitute nature.

Does this admission involve a reversion to the common-sense view of *things*, or to Mr. W. E. Johnson's notion of continuants? I think not. These views rest upon the assumption that there

he nevertheless continues to use Leibniz' language to the complete obscuration of his theory.

* *Mind*, N.S., 140, p. 495.

are substantive objects which can be *in* a place and *at* a time without reference to other places and times, i.e. they involve simple location. Whitehead's view repudiates this.

But if objects are not simply located, what is the mode of their reference to space-time? Professor Whitehead distinguishes three characters of space and time, which he calls (i) the separative, (ii) the prehensive, (iii) the modal character of space-time. It is not necessary to say anything here about (i); (ii) has already been dealt with; (iii) is important since "the modal character taken by itself gives rise to the idea of simple location."*

I take it for granted that it will be admitted that the brown surface I am seeing when I look at this table is a term in a multiple relation. So much we have assumed to be established by Berkeley. It follows that *either* the brown colour must be denied to be really in nature, *or* we must admit that *though* it is essentially relative it is nevertheless really in nature. This leads us to the admission that the brown colour and the brown table as perceived are "there from here," i.e. are *in the perspective there from the standpoint here*.† No shorter statement can express its mode of location. Thus, the brown is not simply *here* where I am perceiving it, nor is it simply *there* where it is perceived as located. It is present *here* with the mode of location *there*.‡ The peculiarity of Whitehead's view is that this relational statement is taken to express a real fact in nature. Unlike most philosophers who accept the modern theory of relativity, he does not argue from the relativity of "distances" and "times" to their unreality; he does not deny them to be "physical facts."§

* *Science and the Modern World*, p. 90.

† This is clearly fundamentally different from Leibniz' "perspectives." The "there" and the "here" cannot be disjoined.

‡ *Science and the Modern World*, p. 100. Cf. *P.N.K.*, § 53.1.

§ See *The Principle of Relativity*, p. 85. "On my theory there is a relevant fact of nature which is absent on Einstein's theory."

So, too, colours, sounds, touches may be admitted to be relative to the bodily life of the observer, and yet be admitted to be in nature.

It should be clear that Professor Whitehead's theory recognizes that the three following propositions must be asserted together: (1) all that we observe, including the secondary qualities, are within the one system of nature; (2) these qualities are related to the bodily life of the observer; (3) these qualities have not simple location. Consequently, we are led to "the entire abandonment of the notion that simple location is the primary way in which things are involved in space-time".*

* *Science and the Modern World*, p. 128.

II. *By* R. B. BRAITHWAITE.

I FIND myself in some difficulty in attempting to contribute to this symposium. We are asked to discuss the theory of location which Dr. Whitehead suggests (I will not say elaborates) in his *Science and the Modern World*. There is no doubt that Dr. Whitehead thinks that this theory is a simple development of the philosophy of nature elaborated in *The Principles of Natural Knowledge* and *The Concept of Nature*, a philosophy based upon events which I think may quite possibly be true. But in his latest works, so far as I can understand them, Dr. Whitehead appears to throw over completely his earlier doctrine of distinct events as the relata of natural relations in favour of a sort of monism in which everything determines everything else. Now I should like to think that in this paper I am defending the views of the Turner Lecturer of 1919 against the criticisms of the Lowell Lecturer of 1925 ; but, since Dr. Whitehead certainly thinks that he has put forward one philosophy which he has slightly modified and not two incompatible philosophies, I have been somewhat shaken in my belief that I really understand the doctrines of his earlier books, especially since it must be admitted that there are many passages in these that will admit of a monistic interpretation. So all I will say is (echoing Miss Stebbing) that the theory with which I am opposing her interpretation of Dr. Whitehead is one which may be true and which is consistent with what I believe I learnt at the feet of the Turner Lecturer.

“Simple location,” whatever its precise meaning, is certainly concerned with spatial and temporal relations ; and Dr. Whitehead has made it clear again and again that it is only events that are directly in space and in time. So I don’t think much excuse is

needed for devoting most of my paper to a consideration of these events; since I think that once we are clear about them, Dr. Whitehead's assertion (which proposition I take to be the "fallacy of simple location"), that "among the primary elements of nature as apprehended in our immediate experience, there is no element whatever which possesses this character of simple location,"* appears obviously false. Now the first thing that I think I have learnt from Dr. Whitehead is that there is a radical distinction between events and the other things in the world. To quote Miss Stebbing: "The ordinary view makes substantive objects fundamental, and treats events as properties of objects. Whitehead's view makes substantive events fundamental, and treats objects as characters of events." With this latter view I am in substantial agreement, except that I should be apt to consider the things which Dr. Whitehead now calls "enduring objects" to be long events which are the situations of objects rather than the objects themselves.† Accepting this fundamental difference between events and objects, I was surprised to find Miss Stebbing saying: "If events and objects were simply bifurcated, Whitehead would be simply substituting one fallacious theory for another of the same type." The view that the rejection of the essential relatedness of events to one another and to objects involves a "vicious bifurcation" is, I think, to misunderstand

* *Science and the Modern World*, page 81.

† Indeed, I should use about them the same sort of language which Dr. Whitehead uses on page 121 of *Science and the Modern World* where he is contrasting an "enduring object," such as a mountain, with an "eternal object," such as a colour. This language seems to me quite inconsistent with Dr. Whitehead's doctrine that all objects are universals, and it was this that prompted my remark, criticized by Miss Stebbing, comparing the "enduring objects" to Mr. Johnson's "continuants." I did not intend to suggest that this is what Dr. Whitehead really meant: I wished to suggest that "the surreptitious introduction of the notion of a 'thing'" was a failing from which not even Dr. Whitehead was wholly free.

what the Turner Lecturer was after when he denounced the bifurcation of nature; so I had better state what I think is the truth in this denunciation. I hasten to add that I am sure that the Whitehead of to-day would agree with Miss Stebbing rather than with me.

What is the "fallacy of bifurcation" with which "the modern natural philosophy is shot through and through"?* It is, surely, the division of nature into "two systems of reality, which, in so far as they are real, are real in different senses." But it is equally certainly not the division of nature into two quite different sorts of entities, both of which are equally real and "in nature." The theories which Dr. Whitehead explicitly rejects as vitiated by the fallacy are (1) the theory that physical objects are real and their appearances unreal, (2) the theory of "psychic additions" of secondary qualities, "which are only the mind's way of perceiving nature," and (3) the theory that the ultimate physical objects are "purely conceptual." The ground for rejecting each of these theories is not that each makes use of too many distinct entities, but that each theory makes some set of entities not really there in nature. Dr. Whitehead's endeavour is not to reduce the number of independent things in the world, but to include in his system everything that there is (except the mind). "For natural philosophy everything perceived is in nature. We may not pick and choose. For us the red glow of the sunset should be as much part of nature as are the molecules and electric waves by which men of science would explain the phenomenon. It is for natural philosophy to analyse how these various elements of nature are connected."† There is no reason why this analysis should not yield "radically distinct types of entities,"‡ some of which are independent of

* "The Concept of Nature, page 6.

† *Ibid.*, page 29.

‡ *The Principles of Natural Knowledge*, page 60.

each other; and it is certain that such analysis and separation in thought of the natural elements is not to be included in the "vicious bifurcation" which Dr. Whitehead deplors. The passages which Miss Stebbing quotes to explain "bifurcation" seem to make this quite clear. And in the long passage which Miss Stebbing quotes from *The Concept of Nature*, about "the false idea which we have to get rid of" being "that of nature as a mere aggregate of independent entities, each capable of isolation," the emphasis is surely on the "mere." The context of this passage is a discussion of space and time, and the gist of the matter seems to me to be expressed by the sentence which immediately follows Miss Stebbing's quotation. "There can be no time apart from space; and no space apart from time; and no space and no time apart from the passage of the events of nature."* The true view expressed in these passages is that space and time and matter must be considered in relation to events: i.e., that propositions about space and time and matter are analysable into propositions about events. "An isolated event is not an event" seems to me a rather unfortunate way of saying "There are no isolated events." To say that every ingredient in nature must be treated as equally real does not imply that "nothing in nature could be what it is except as an ingredient in nature as it is," and it is the development of this doubtful doctrine, especially with regard to events, which has led Dr. Whitehead to the barren monism of his latest books.

If we accept the fundamental distinction between events and the other things in the world, a distinction explicit in his earlier,† and implicit in his later, philosophical writings, we ought to be quite certain that we know exactly what an event is. It seems to

* *The Concept of Nature*, page 142.

† In *The Principles of Natural Knowledge* he speaks of it as a "duality of nature" (page 98). Miss Stebbing also speaks of it as "an essential duality" (*Journal of Philosophy*, vol. xxiii, page 213).

me that part of the difficulty of Dr. Whitehead's books is that he uses the word in two senses. Dr. Whitehead is concerned, like all natural philosophers, with the analysis of facts about nature; and the peculiarity of his analysis is that the space-time references in the facts are substantives qualified by other things instead of adjectives qualifying other things. It is therefore particularly misleading for Dr. Whitehead to use the word "event" not only for the space-time references, but also for the natural facts themselves. For example, in his Presidential Address to the Aristotelian Society, after introducing an event as "any region of space-time," he says further on: "The event is not bare space-time, which is a further abstraction. An event is qualified space-time—or rather, the qualities and the space-time are both further abstractions from the more concrete event."* This "more concrete event" is surely the fact that the event has certain properties in which we are interested, and it is confusing to use the same word for two things of such different natures. If "event" is to mean just fact, no realist philosopher could possibly disagree with Dr. Whitehead's considering the event "as the ultimate unit of natural occurrence."† Surely the novelty of Dr. Whitehead's natural philosophy is not anything which he says about the fact as a unit, but is his analysis of the natural fact into space-time references having certain properties and relations. So I think that for clear thinking we must reject entirely the use of "event" for "particular fact" or "particular occasion" or "epochal occasion." The facts of nature are not just the events in nature:‡ they are the facts that the events have certain properties and relations.

This confusion between the two senses of "event" is relevant to the doctrine that the relations of an event are all internal to

* "Uniformity and Contingency," *Proc. Arist. Soc.*, N.S., vol. xxiii, page 15.

† *Science and the Modern World*, page 146.

‡ See *The Principles of Natural Knowledge*, page 63.

the event. Miss Stebbing admits that Dr. Whitehead's use of "internal" and "external" is misleading, being reminiscent of the Jabberwock which Dr. Moore slew in 1919. The distinction she would substitute for this—that between the essential and the contingent, or actuality and possibility—seems to me to arise from the use of "event" in the wrong sense. "Whatever is actual is an event, and thus what is actual *could* not be otherwise." But in one reasonable sense of "actual," whatever is actual is a fact; and in the other reasonable sense, I can see no reason why objects as well as events are not actual. So I think that Miss Stebbing's "event" is here a fact, and all that the assertion of a certain fixedness of relation comes to is that what is actual is *not* otherwise. The distinction between the actual and the possible would seem to be merely that between a fact and a universal, and the doctrine that "the object is said to 'transcend' the occasion; but this transcendence or abstraction does not involve disconnection from the occasion: on the contrary, each object has its special mode of connection with the occasion" is the truism that a propositional function becomes a proposition when "constants" are substituted for the "variables." If this interpretation is correct, facts are "actual," universals are "possible," the relations of facts to one another and of universals to one another have a "fixedness of relation," the relation of a fact to a universal involved in it is "essential" to the fact and "contingent" to the universal: and all these expressions have meanings such that all these propositions are truisms. I think that these truisms are part of what Dr. Whitehead and Miss Stebbing wish to assert, but it seems to me that by their ambiguous use of "event" they pass on from them to much more disputable propositions expressed in nearly the same words about the properties of events taken as space-time references.

What precisely is this proper sense of "event," which I have spoken of vaguely as the space-time reference? In his more

recent writings, Dr. Whitehead speaks of it as "any region of space-time,"* a "region" in "the four-dimensional continuum"† and as a "spatio-temporal unity."‡ Miss Stebbing also uses the expression "region of space-time,"§ so I shall take this as a synonym for "event." An event = a connected four-dimensional region, finite or infinite, in space-time.||

Let me make this quite clear. By "four-dimensional region," I mean "four-dimensional generalized volume," except that my region is not to be regarded as a construction from point-instants: instead point-instants are to be logically constructed from the events. The four-dimensional spatio-temporal regions are fundamental: the point-instants are to be treated as event-particles derived by means of "Chinese boxes" of the regions or events. By space-time I mean, if you like, Absolute Space-Time; for I think that the criticism of Dr. Whitehead's theory of sense-objects and of the General Principle of Relativity, because they involve Absolute Space-Time "as a kind of fundamental stuff or matrix,"¶ is an application of the principle of giving a dog a bad name in order to hang him with an easy conscience. For, whether or not events are just regions of space-time, there is certainly a one-one correlation between events and such regions.

* *Proc. Arist. Soc.*, N.S. vol. xxiii, page 8.

† *The Principle of Relativity*, page 72.

‡ *Science and the Modern World*, page 102.

§ *Journal of Philosophy*, vol. xxiii, page 212.

|| Dr. Whitehead declines to admit that "the complete intersections of pairs of non-parallel durations" are events, nor will he allow any combination of two events to be an event. (*The Principles of Natural Knowledge*, page 117 and page 77.) To fall exactly in line with Dr. Whitehead's usage, the class of events would have to be taken as the class of finite regions in space-time together with the regions that are infinite in certain definite ways, all these regions being simply-connected. But I can see no satisfactory reason for these restrictions.

¶ C. D. Broad, *The Mind and its Place in Nature*, page 186. See his *Scientific Thought*, page 486.

But the problem of absolute or relative space arose because there is not a one-one correlation between bodies and the volumes of space they occupy, *i.e.*, because they move about. So we can either analyse spatial relations in terms of "occupying a volume at a time" and simple relations between the volumes—the absolute theory—or into more complicated direct relations between the bodies themselves (and, probably, other bodies as well)—the relative theory. But events are fixed in the four-dimensional volumes, so their spatio-temporal relations are as simple as those of these regions. If we regard the events as being just these regions, our theory of space-time may be called "absolute" because we are assuming chunks of space-time (but not points of space-time), or "relative" because the spatio-temporal relations between two events are not to be analysed by means of something else of a different nature. So which name a critic prefers to give it depends upon which he thinks the most uncomplimentary term.

In the case of position in space-time, the more important distinction is what Mr. Johnson calls the distinction between a substantival and an adjectival theory,* and the doctrine of events which I have put forward is equivalent to the adoption of a substantival view of regions of space-time. But I am not satisfied enough about the distinction between substantive and adjective to think that this is a good enough stick for beating either Dr. Whitehead's theory or Einstein's doctrine of matter as kinks in a substantival space-time.

There are three facts about events that are relevant to Dr. Whitehead's discussion of simple location.

(1) Some events are undoubtedly "apprehended in our immediate experience." An event is never immediately apprehended alone, but always as having some property: nevertheless

* See W. E. Johnson, *Logic*, Part II, page 165.

it seems to me quite clear that we apprehend the space-time reference as well as the fact that the space-time reference has some property.

(2) It is false that "each relationship enters into the essence of the event; so that, apart from that relationship, the event would not be itself."* For the essence of an event is its being a region of space-time, and all that follows from this are its most general spatio-temporal relations to other regions (*e.g.*, separation and intersection) and nothing about its non-spatio-temporal properties. So we may happily reject Dr. Whitehead's view and its implication that (assuming the Identity of Indiscernibles) there is only one event like Bradley's Absolute.†

(3) How are these regions of space-time in space and time? Dr. Whitehead's view is that the spatial and temporal relations of an event are determined by reference to a percipient event which, in itself, fixes a space-time system through being co-gredient with a duration. The time-axis is selected out of the four-dimensional manifold by the direct connection of the percipient event with that duration which is the whole event simultaneous with the percipient event, and an event has a definite spatial relation to the percipient event within their common duration. Thus the selection of the space-time system is a fact of nature as much as any other fact: the position in space and in time of an event is relative to a percipient event, but is not therefore subjective (as Miss Stebbing has well remarked). Dr. Whitehead rather misleadingly calls this the "absolute position" of an event.‡ I should prefer to say that a percipient event fixes a time-axis absolutely and gives an absolute

* *Science and the Modern World*, page 174.

† See Bertrand Russell, *Philosophical Essays*, page 162.

‡ *The Principles of Natural Knowledge*, page 77. An event could be said to have this "absolute position" in the "timeless space" as well as in the "instantaneous space" associated with a duration.

position "here now" to itself, that the temporal position of another event is given by a dual relation to its duration, and that its spatial position is given by a relation to other events within the duration* according to the ordinary relational theory of space. This doctrine that the percipient event is given along with the duration simultaneous with it, so that the distinction between space and time for an observer is an objective fact, is the "relevant fact of nature which is absent on Einstein's theory ;† and it is this rather than the necessity of the homogeneity of space-time that is Dr. Whitehead's great contribution to the philosophy of space and time.

We are now in a position to discuss what Dr. Whitehead means by simple location and what things have it. In the passage quoted by Miss Stebbing all that is defined is a bit of matter having simple location ; on pages 69-70 of *Science and the Modern World* there is a different description of "simple location" (corresponding, perhaps, to what I shall call "generalized simple location"), and Dr. Whitehead gives the property of having simple location as what he means by being matter. Moreover, in *The Principles of Natural Knowledge* and *The Concept of Nature* it is only objects that are spoken of as "located." This restriction would confine the discussion to the "objects," upon whose simple location I am largely in agreement with Dr. Whitehead and Miss Stebbing ; whereas it is Dr. Whitehead's new doctrine of events that is the most novel and (I think) the most unsatisfactory feature of his most recent books. So I shall assume that the definition of "simple location," on page 81 of *Science and the Modern World*, is not intended to limit the class of what can have the property to "bits of matter" or "objects" ; or, alternatively, that "what I mean by matter,

* Or, according to Dr. Whitehead, a relation to other non-parallel durations.

† *The Principle of Relativity*, page 85.

or material, is anything which has this property of *simple location*,"* so that events may quite well be matter.

But surely, in this case, events have simple location. Dr. Whitehead's theory of durations, and percipient events within them, gives a "meaning to the idea of a definite region of space, and of a definite duration of time," and events (which are regions of space-time) have what Dr. Whitehead calls "absolute position" in such definite regions of space and definite regions of time. And since some of these events are "among the primary elements of nature as apprehended in our immediate experience," it seems to me that Dr. Whitehead is certainly wrong in thinking that none of these primary elements have simple location. For the "relevant fact of nature," which his theory, but not Einstein's, accounts for is the fact that events have simple location in the space-system and in the time-system determined by a duration. It is true that the location of an event requires reference to its relations to other events; namely, to a duration of the time-system for its location in time, and to other events in the duration (or to other durations) for its location in space. But Dr. Whitehead explicitly says, that "this concept of simple location is independent of the controversy between the absolutist and the relativist views of space or of time"†: and on the pre-Einstein relativist theory of space and time, the location of a bit of matter requires, as to time, reference to one event-particle and, as to space, reference to three other material particles; so this is not the point that Dr. Whitehead wishes to make. The theory elaborately worked out in *The Principles of Natural Knowledge* does give a perfectly definite meaning to a definite region of space and a definite region of time, provided that it is events and not objects that have this simple location; and it

* *Science and the Modern World*, page 69.

† *Ibid.*, page 81.

seems to me certain that events are some of the immediate objects of our perception.

The reason that Dr. Whitehead now rejects such a view is not, I think, anything to do with simple location in a definite region of space and in a definite duration of time, where space and time have been separated by means of a simultaneous duration, but is due to his present monistic theory of events, so that his objections would be still valid against a generalized simple location in space-time. To say that a thing has "generalized simple location," I mean that in expressing its relations in space-time it is adequate to state where it is in a definite region of space-time apart from any essential reference to the relation of the thing to other regions of space-time. This "generalized simple location" is suggested in the second account of "simple location" given in *Science and the Modern World* (pages 69-70), but I am not sure that I am stating exactly what Dr. Whitehead means, because he so often uses "in space-time" when he intends "in space and in time." But Miss Stebbing writes with reference to Dr. Whitehead's rejection of simple location: "The inclusion of colours, sounds, scents, etc., in nature makes it impossible to retain *simple location* whilst merely substituting space-time for space and time,"* and in her contribution she speaks of simple location "in a given region of space (or of space-time)." So I think that my generalized simple location may be what the whole fuss is about. In this case, my position is quite simple. Since events are for me just regions in space-time, all events have generalized simple location; or rather, they are just generalized simple locations in space-time. Consequently, since some events are "among the primary elements as apprehended in our immediate experience," the denial of simple location to all such elements is obviously false. To maintain this denial cuts

* *Journal of Philosophical Studies*, vol. i, page 384.

at the root of Dr. Whitehead's whole philosophy, which makes my "generalized simple locations in space-time" the ultimate substantival elements in Nature.

I have not dealt with Dr. Whitehead's objects, because so far as the notion of simple location is concerned, I think I agree with him. That is to say, I think that sense-objects, which are the only objects "among the primary elements as apprehended in our immediate experience," are not simply located. But I think that perceptual objects like chairs and tables (which, though abstract, are not of a very high degree of abstraction) are simply located through being simple adjectives of the events in which they are situated. This view is in conformity with Dr. Whitehead's penultimate teaching, which I do not think is consistent with his Lowell Lectures.

I conclude, that if by the "fallacy of simple location" is meant the proposition that the attribution of simple location to any of the immediately apprehended elements of nature is false, this proposition of Dr. Whitehead's is a fallacy; since events, some of which are immediately apprehended, have "simple location" in the restricted sense both in space and in time, and in my generalized sense in space-time. And that the Lowell Lecturer's rejection of any simple location and his corresponding doctrine that all the properties of an event enter into its essence, completely destroy the philosophy of definite events elaborated in *The Principles of Natural Knowledge*, the acknowledged foundation for Dr. Whitehead's subsequent most charming flights of fancy about the nature of the world, the flesh, and the deity.

III. *By D. M. WRINCII.*

1. It is a matter of some difficulty to contribute to the present Symposium, since, however interpreted, the question contained in the title involves a number of different issues. I shall follow the first speaker in interpreting it to mean "Is the ascription of simple location a fallacy in the case of entities of specific types." And first and foremost we must consider the ascription of simple location to Events.

The second speaker has carefully considered the use of the term "Event," and it will be convenient to use the term in the sense in which Professor Whitehead uses it when he talks of Events as "Spatio-temporal Unities." The question as to what properties can be properly ascribed to entities which are events in this sense and I quite agree with the second speaker that the word has been used in a double meaning in Professor Whitehead's works - is therefore the first matter for consideration.

Now it is allowed that we build up Space Time from events. By means of various logical devices and analysis of a very high order of complication it has proved possible to construct a Space Time system from events which are psychologically primitive. There are, of course, many different Space Times which can be constructed in this way, and the nature of the relation of an event to any one kind of Space Time depends entirely on the method of construction. But it is difficult to conceive any method of construction which will make it possible to ascribe simple location to events.

In the first place Professor Whitehead uses the term "simple location" in such a sense that a piece of matter may properly

be said to have simple location. This in itself is sufficient to show that no event can be said to have simple location, for a piece of matter is an entity of a wholly different type from an event, and it is scarcely plausible to suppose that entities of such different types can share the same property. But this issue is hardly more than a verbal one, and there is undeniably an important issue involved, if we interpret the question before us carefully.

2. Apparently it will be sufficient to allow us to say that simple location cannot properly be ascribed to events, if we can shew that any statement about an event requires reference to other parts of space time. Thus, on page 62 of *Science and the Modern World* (new edition), Professor Whitehead says:—

“Curiously enough this character of simple location holds whether we look on a region of space time as determined absolutely or relatively. For if a region is merely a way of indicating a certain set of relations to other entities, this characteristic, which I call simple location, is that material can be said to have just these relations of position to the other entities without requiring for its explanation any reference to other regions constituted by analogous relations of positions to the same entities. . . . In fact . . . you can adequately state the relation of a particular material body to space time by saying that it is just there, in that place, and so far as simple location is concerned, there is nothing more to be said on the subject.”

Now I have made this quotation for two reasons. In the first place it shews that if we take the question absolutely literally, there can be no sense whatever in which *events*, at any rate, can be said to have simple locations. But it also suggests that there is an important issue involved if we take a rather broader interpretation of the question, namely, the question as to whether the relation of an event to space time is such as to require for its

complete analysis reference to other events. And I take it that it is this question and not merely the verbal one which it will be interesting to discuss in our Symposium.

Now I cannot, in the first place, agree with the second speaker when he takes the view that it is almost obvious that some events have simple location. It seems to me that this question cannot properly be investigated until we have thoroughly discussed the nature of the special type of space time relative to which our question is put.

When a suitable kind of space time has been built up from the material at our disposal, then, and not before, we can ask with respect to that particular type of space-time, whether events have simple locations. For it is not satisfactory methodologically to prejudge the question. If we are building up a space time, or rather, if we are studying the building up of space time by Einstein or Whitehead, for example, we start with the minimum of assumptions as to events, and we then work out the logical properties of the constructions which have been arrived at. It is surely unsatisfactory, therefore, to attempt to see what kind of relation is to result between events and space time until the particular kind of space time has been investigated.

3. On this point I think I may join issue with the first speaker in her discussion of the different kinds of relations which subsist between one event and another and between an event and an object. She says that an object has no necessary relation to an event. Now, I personally find it very difficult to state precisely what is meant by a necessary relation, but I take it that I am not misinterpreting her when I say that part at least of the reason why an object does not stand in a necessary relation to an event is that there is no determinateness as to the method by which objects are constructed out of the crude material of events. There may be any number of methods, all of them satisfactory. The relations between events are, of course, in a wholly different

category. As Miss Stebbing says, the notion of contingency is quite inapplicable to the relation between two events.

It therefore appears that it is quite unfeasible to ask whether events have this or that type of relation to space time until we have studied the particular type of space-time relative to which the question is asked. And it is for this reason that I disagree with the tone of the second speaker when he appears to think (page 5) that the question can be answered and finished with by means of general considerations alone.

4. There is, however, one point which seems to me to be of fundamental importance which can be discussed without an exhaustive investigation of the various types of space-time which can be constructed from these spatio-temporal entities. And it is this point which I think raises the important problem in this part of Epistemology. It is quite evident that the sense in which any event may be said to have a location at all is such as to require logical analysis before the epistemological basis of such a statement is manifest. Such must be the case whatever the precise type of logical construction any specific kind of space-time may require. And it is this question which is implicitly present in every discussion which is given by Professor Whitehead in which he uses the words "simple location," and indeed when he discussed the status of events in relation to space time in general. The fallacy - or rather we had better say the views which he considers fallacious - which he is out to combat is what he has called the Fallacy of Misplaced Concreteness.

In various important passages, Professor Whitehead has explained that by means of logical constructions it is possible to interpret statements about objects in such a way that the fundamental analysis contains no reference whatever to objects as such, and is merely concerned with the entities which are epistemologically primitive and the relations between them. This very important advance in methodology has already proved

of the greatest value to epistemologists, and the method is capable of still further applications to the outstanding problems of theory of knowledge. Now in the case of each of these statements, where a logical construction has been shewn to be involved, there has, in fact, been an example of the Fallacy of Misplaced Concreteness. Surveyors who deal with points and straight lines, biologists who deal with this or that species of plant, physicists who deal with the behaviour of rigid bodies, are evidently talking most of the time about highly complex entities whose epistemological credentials are quite obscure.

Now in general it matters very little in science whether the subject-matter of the propositions under discussion happens to be highly complex logical constructions or the very simplest and most primitive of entities so long as the meaning to be attached to the terms remains constant within the enquiry which is being pursued. Some sciences necessarily deal with material which is nearer its epistemological forbears than the highly abstract material of other sciences. Some sciences can go on making progress for centuries without the epistemological status of its subject-matter being of the slightest relevance.

However, sometimes this is not the case, and the recent development of theories of space time in physics provides a notable example. And it is for this reason that it is of the first importance to detect the fallacy of misplaced concreteness when it exists. It is this fallacy which led to the long neglect of the wonderful new geometries which have become of enormous importance in the theory of relativity. The wholly erroneous ideas as to the nature of space and time formerly current in philosophical circles delayed the full realisation of the importance of these geometries until—during the last twenty years—they became obviously and undeniably important in their applications to physics and the external world in general. Mensuration, being a borderline science, where the epistemological status of the entities involved

is relevant and important suffered very much from the fallacy of misplaced concreteness ; most other sciences, such as botany and zoology or anthropology or even chemistry, do not.

Indeed, it is even in some ways an advantage that there should be a certain vagueness as to the epistemological status of the entities which make up some of the sciences. For in so far as the epistemological nature of certain entities is irrelevant in some domains of scientific knowledge, it is unobjectionable to put such questions aside in considering the various consequences which can be derived by means of logical considerations, when certain specific properties of these entities are postulated. Indeed, the less we pay heed to irrelevant issues with regard to entities, the more easy it is to make progress in the development of the departments of science in which they occur. At the present day, it is only in physics and psychology that these epistemological considerations are important.

I have ventured to discuss in some detail the fallacy of misplaced concreteness, since it appeared to me that the question before us at this meeting is intimately bound up with this fallacy. Indeed, to ascribe simple location to events seems to me to open questions as to the status of space time which, apart from this fallacy, would need little discussion.

5. Following the first speaker, we should now proceed to consider the feasibility of ascribing simple location to objects. And here we are on surer ground. For in virtue of the relation between objects and events, the answer to the question as to the feasibility of ascribing simple location to events determines the answer to the same question with regard to objects. For it is evident that any proposition about objects adequately analysed would reveal the fact that the fundamental constituents of the proposition are events. Thus, for example, to make any assertion as to the space-time characters of a specific object, is to make an assertion as to various classes of events. The question, therefore,

cannot be finally discussed until we have come to a definite conclusion as to the propriety of ascribing simple location to events.

6. I fear, therefore, that so far as my personal contribution to this symposium is concerned, the question will have to be left in this somewhat unsatisfactory state. If we treat the question strictly literally, it appears to me clear that events cannot have simple locations. However, taking the question more broadly as having reference to the nature of the relation between events and space time, I am of the opinion that this relation is such as to require very complicated logical analysis before its nature becomes plain, and that no conclusion can be arrived at except after an intensive consideration of the space time in question. Such an enquiry could, of course, be undertaken with respect to the space time of Professor Whitehead. But the important point, so far as I can see, is that there is no guarantee that the relation would be of the same nature in all the various space times which can be constructed and which very well may be constructed in the future. All that we can say quite definitely is that in all space times, propositions as to location will certainly contain terms which are abstractions from experience. The precise type of relation entailed by any one type of space time must, therefore, be investigated subsequently. The fact that in the types at present current the relation of events to space time has a certain logical structure and a high degree of complication which make it quite unfeasible to ascribe to events simple locations is no answer to the question before us in this symposium, and is indeed scarcely relevant to our enquiry.

APPENDIX.

 POSTSCRIPT TO PAPER ON "THE NATURE OF
INTROSPECTION."

By G. F. STOUT.

OF the many points touched on in Professor Field's over brief paper, I shall select two which especially interest me ; first, his suggestion that "all introspection is simply attention to the mental side, or the mental quality of certain bodily processes," and is thus "awareness of the body literally from the inside." As he himself points out, I agree with him to this extent that I also hold organic and motor *sensa* to be always included in what we are introspectively cognisant of in being cognisant of subjective processes such as attending or fearing.* How, then, do we differ ? That we do disagree is very probable. But I am not sure where the disagreement begins. All turns on what he means when he speaks of the "mental side or quality of the bodily processes." It would seem that what he means is merely that the bodily processes are immediately experienced or felt in the way of sensation. To me any such view appears quite inadequate and incompatible with the facts. When I am aware that I desire or fear or attend or see or hear, what I am cognisant of is not merely that I am actually experiencing certain *sensa*

* I even go further ; I would include also sensations of the special senses, *e.g.*, visual and tactual considered in one aspect of their being. But this is a point which I cannot deal with here.

of a peculiar kind. In the attempt so to apprehend the subjective process I find that I am leaving out what is indispensable to its being known as a subjective process at all, *i.e.*, its relation to its object. To desire is to desire something: to say that something is desired by me and that I desire it are different ways of expressing the same fact. Further, what is desired must be an object for the desiring individual himself; it is not enough that it should be an object for anyone else. It cannot, indeed, from the nature of the case, be actually experienced in the moment of desiring it; but it must be thought of, however indefinitely. Now this immanent relation of subjective process to its object is, I submit, not a relation which bodily processes or *sensa* of any kind, considered merely as such, can bear to each other. In this respect an organic sensation of the brain is in the same category with a stomach ache, and a stomach ache with a sound *sensum*. To pursue this topic far on the present occasion is impossible. I must be content with a bare indication of my own way of regarding it. But I cannot leave it without adding that, if I am right, the very being of the subject in any relevant sense depends on the immanent subject-object relation. Apart from it there would be no self such as we are cognisant of in ordinary self-knowledge and in introspection. The most essential marks by which Mr. Dawes Hicks distinguishes the self from a physical thing would be gone. There would be left only an empirical self in the Kantian sense, which would not be the self of self-knowledge. It could not know itself or, indeed, anything else. For "knowing" abstractly considered, apart from attention or interest of some sort, is simply identical with the immanent subject-object relation, which is supposed to be absent. If this empirical self is to be known at all, there must be another self, which is not merely empirical, to know it. We are thus driven to assume a pure or transcendental self. Which illustrates Mr. Dawes Hick's contention that if we assume the doctrine

of the empirical self, we are bound to admit a pure self as its correlate, and inversely.

The second point suggested by Mr. Field's paper arises in connexion with his emphatic insistence on the fact that not only the beginner but "all of us when we start to describe our mental processes in any given case . . . find ourselves giving the greater part of our description in terms of the external facts which we observed or thought of : It is the things that we thought of, not the thinking of them, which we are describing the greater part of the time." Now I know quite well what Mr. Field here refers to ; and if I am allowed to interpret his statement in my own way, I not only agree with it but regard it as a necessary consequence of my view of subjective process and of introspection. If relation to its immanent object is essential to the process of thinking, we cannot specify what the thinking is without specifying what its object is. On the other hand, I cannot admit what Mr. Field seems to take for granted, that in so proceeding we are not describing the workings of our own minds, and that therefore our attitude is not properly introspective. We are describing mental facts and our procedure is properly introspective if and so far as our distinctive interest is in characters and relations of the physical objects which are not themselves physical but belong to it only because we think of it or perceive it and are in some way interested in it. No one, not even the beginner, supposes that such statements as " smoke rises from fire " or " smoke is produced by the burning of coal " of themselves express mental facts. On the other hand, " smoke suggests fire " does express a mental fact. It does so because it can be true of smoke and fire only inasmuch as they are both thought of by some one. Suppose that in an experiment on association of ideas, the subject attempting to describe the workings of his own mind expresses himself as follows :--
" First there is a cloud of smoke and then this developes into

“ smoke arising from a fire.” As a merely physical description the subject knows quite well that this is false. In the physical order, fire comes before smoke not smoke before fire. It is true and he intends it to be true of smoke and fire only inasmuch as they enter into his experience and therefore have a mental as well as a physical being, or to revert to scholastic language an “ intentional ” as well as a “ formal ” existence. In more familiar language, we may say that physical objects are mental facts if and so far as they are “ ideas.” The idea of anything, physical or otherwise, is the thing itself as it appears to be, rightly or wrongly, adequately or inadequately, to some experiencing individual, and variously to different individuals and to the same individual in different stages of his life history. The sun appears to the child to be a large shining disc, about a foot in diameter ; this is his idea of the sun. Afterwards he recognizes that what he still continues to think of as the same physical object is by no means such as he took it to be. In other words, his idea of it has changed. The change is certainly not a physical change in the sun ; it is only a change in what the physical sun seems to be to an individual subject ; in other words, it is a mental change and all the factors and events which enter into it are mental. Subjective experiences in the way of attention and feeling are throughout essentially involved. But to a large extent they may be taken for granted without being explicitly named ; and, to this extent, our explicit description of the working of our own minds is in terms of objects, *i.e.*, of objects as ideas.

It must, however, be admitted that Mr. Field might grant all this, and yet with good reason reply that I have not grappled with the question which more especially interests him. This refers not to objects in general, but to a particular class of objects, of which so-called “ mental images ” furnish a typical example. As this phrase implies, images are regarded by common sense

as mental facts : hence, if observation of mental facts is introspection, observation of images is introspection. This natural attitude of common sense troubles Mr. Field, because, as he says, he finds insuperable objections to the view that so-called " mental images " are really mental. Now, I fully admit that this case is not covered by the distinction between object as idea and object as having a nature and existence of its own independent of any one being cognisant of it and interested in it. We may have an idea of an image, *i.e.*, we may apprehend it as being such and such. But images as such are not themselves ideas. Whatever claim they may have to be regarded as mental must be found in their own nature, not in the fact that someone thinks of them. Have they such a claim ? I hold that they have. My reason is that images pass through changes and enter into relations which belong to the history of our own experience as embodied selves, and not to the history of any external object. The waxing and waning in the intensity and distinctness of my image of the sun and all the peculiar and indescribable differences which I can by attentive scrutiny discern in its successive phases, such changes are certainly not physical changes in the sun. They occur only within the range of my own private experience. I cannot weave them into the context of my knowledge of the sun as part of the physical world. On the other hand, they are not changes in what I think of the sun, or what the sun as physical object seems to me to be. They are actually experienced and therefore actually exist ; but as there is no ground for assuming that they actually exist except in being experienced by someone they may in this sense be properly called mental, though they are neither subjective processes nor ideas.

What I have said of images must be taken to apply also to the primary sensa from which images, by a complex process, are derived. The primary sensa also are constantly varying in such a way that their changes and changing relations cannot be

identified with change either in surrounding bodies or in our own body considered as an external object. In this sense and to this extent they are mental. It makes no difference in principle, so far as I can see, whether we accept or reject the doctrine of Alexander and others that *sensa* have also a nature and existence of their own independent of individual experience. The vital point for psychology is that *sensa* as they enter into individual experience differ qualitatively and quantitatively, and have a different history from *sensa* as supposed to exist independently of individual experience. Whether or not the difference is to be accounted for by processes of "selection" and "distortion" operating on the independent *sensum*, the important point is that it exists and is not merely ideal but real.* The visual *sensum* that I have on looking at a house at a distance really is smaller within my actual experience than it would be if the house were close to me. It does not merely seem to be smaller. On the other hand, the house as physical object may or may not seem to be smaller as the *sensum* decreases. If observation of mental facts as I have defined "mental" is introspection, observation of *sensa* as sensed and of images as imaged is introspection.

What, then, have I to say to Mr. Broad's distinction between "inspection" and "introspection"? I admit, of course, that the distinction is based on a real and important difference. But I cannot admit that, as I understand the term "mental," inspection is not concerned with mental facts. Instead of contrasting inspection and introspection, I should myself prefer to regard inspection as a special kind of introspection. Certainly the inspective attitude seems to me to be far more closely akin to the introspective than to observation of physical things.

* I find Mr. Alexander very obscure and ambiguous on this point.



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